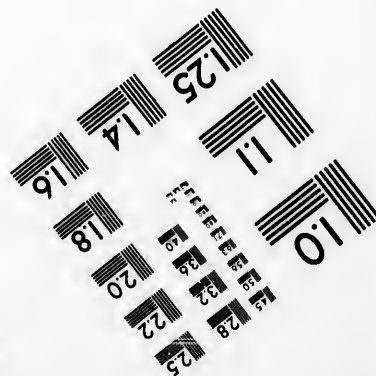
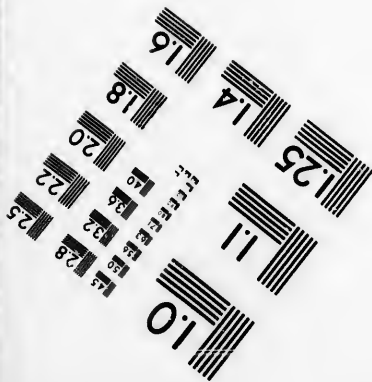
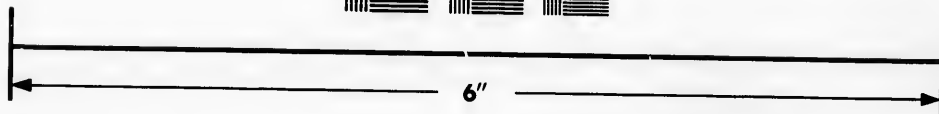
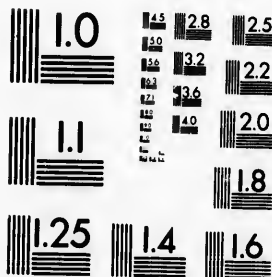


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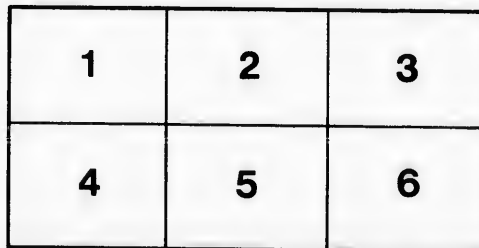
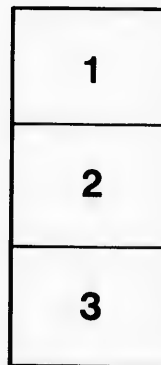
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*W. H. Bell*

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GEOLOGICAL SURVEY OF CANADA  
ALFRED R. C. SELWYN, C.M.G., LL.D., F.R.S., Director

CATALOGUE  
OF  
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OF THE  
GEOLOGICAL SURVEY.  
EMBRACING  
THE SYSTEMATIC COLLECTION OF MINERALS  
AND THE  
COLLECTIONS OF ECONOMIC MINERALS AND ROCKS  
AND SPECIMENS ILLUSTRATIVE OF  
STRUCTURAL GEOLOGY

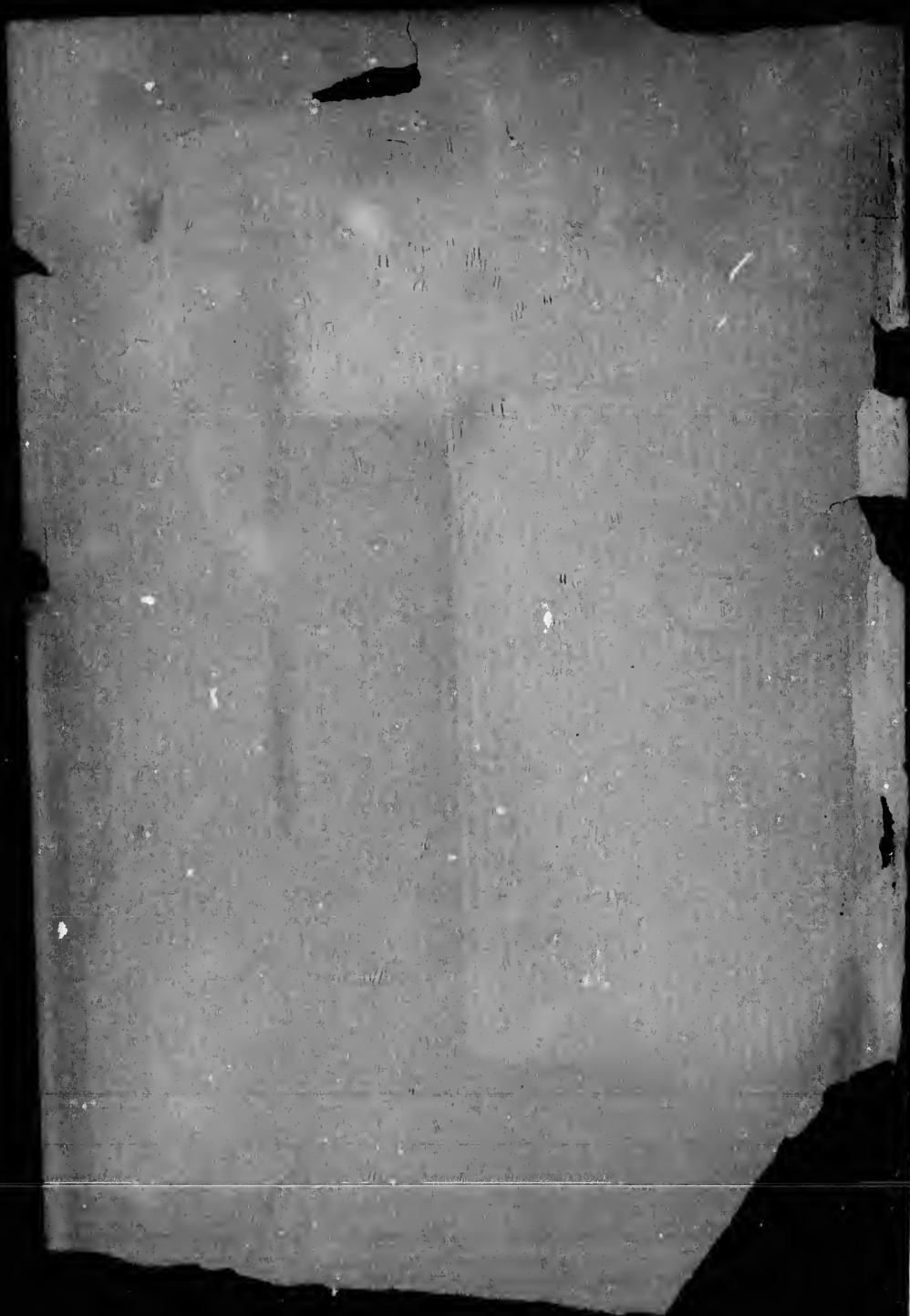
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G. CHRISTIAN HOFFMANN, F. Inst. Chem., F.R.S.C.,  
*Assistant Director, Chemist and Mineralogist to the Survey, and Curator of the  
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TO ALFRED R. C. SELWYN, C.M.G., LL.D., F.R.S.,  
*Deputy Head and Director Geological Survey Department.*

SIR,

In compliance with your wishes I have prepared, and beg herewith to lay before you, the accompanying catalogue of the collections contained in the Mineralogical and Lithological Section of the Museum attached to this Survey. Mr. Ralph L. Broadbent, Museum Assistant in this Section, has rendered valuable aid in the preparation of this Catalogue by preparing lists of the contents of the several cases and assisting in the correction of proofs—a work which he has carried out with an energy, perseverance and good-will which demand our warmest acknowledgments.

I have the honour to be,

Sir,

Your obedient servant,

G. CHRISTIAN HOFFMANN.

OTTAWA, April 20, 1893.

Foldi

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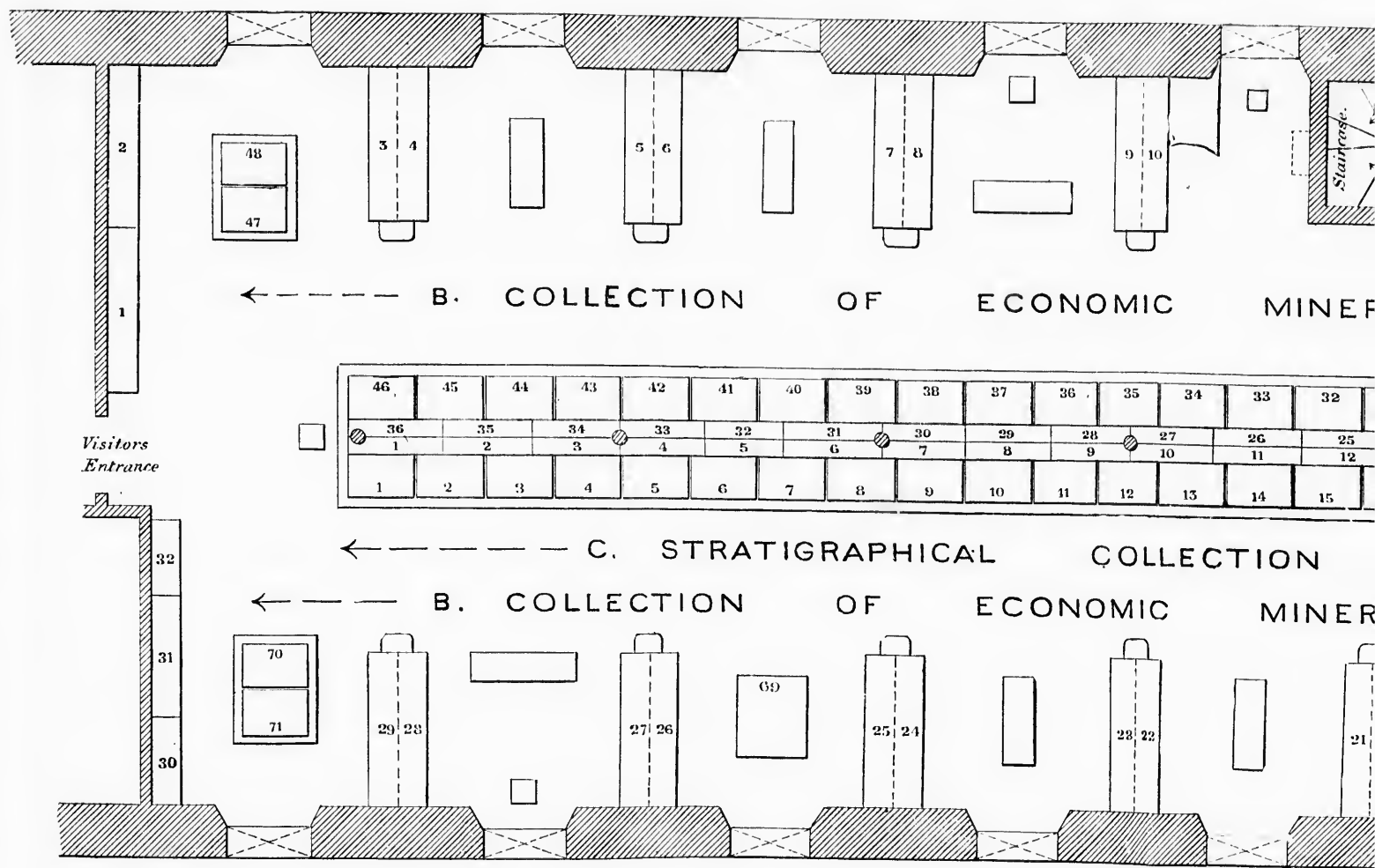
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— 25, line 17 from the bottom, *for* "Rensellaerite" *read* "Rensselaerite."  
— 40, line 26 from the top, *instead of* "446" *read* "466."  
— 41, line 17 from the top, *instead of* "3637" *read* "5637."  
— 54, line 13 from the bottom, *instead of* "647" *read* "697."  
— 131, line 12 from the bottom, *instead of* "2440" *read* "2444."  
— 136, upper side note *should read* "Upright table-case 29" *omitting the word* "continued."  
— 136, line 5 from the top, *for* "pumbago" *read* "plumbago."  
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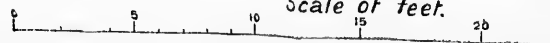


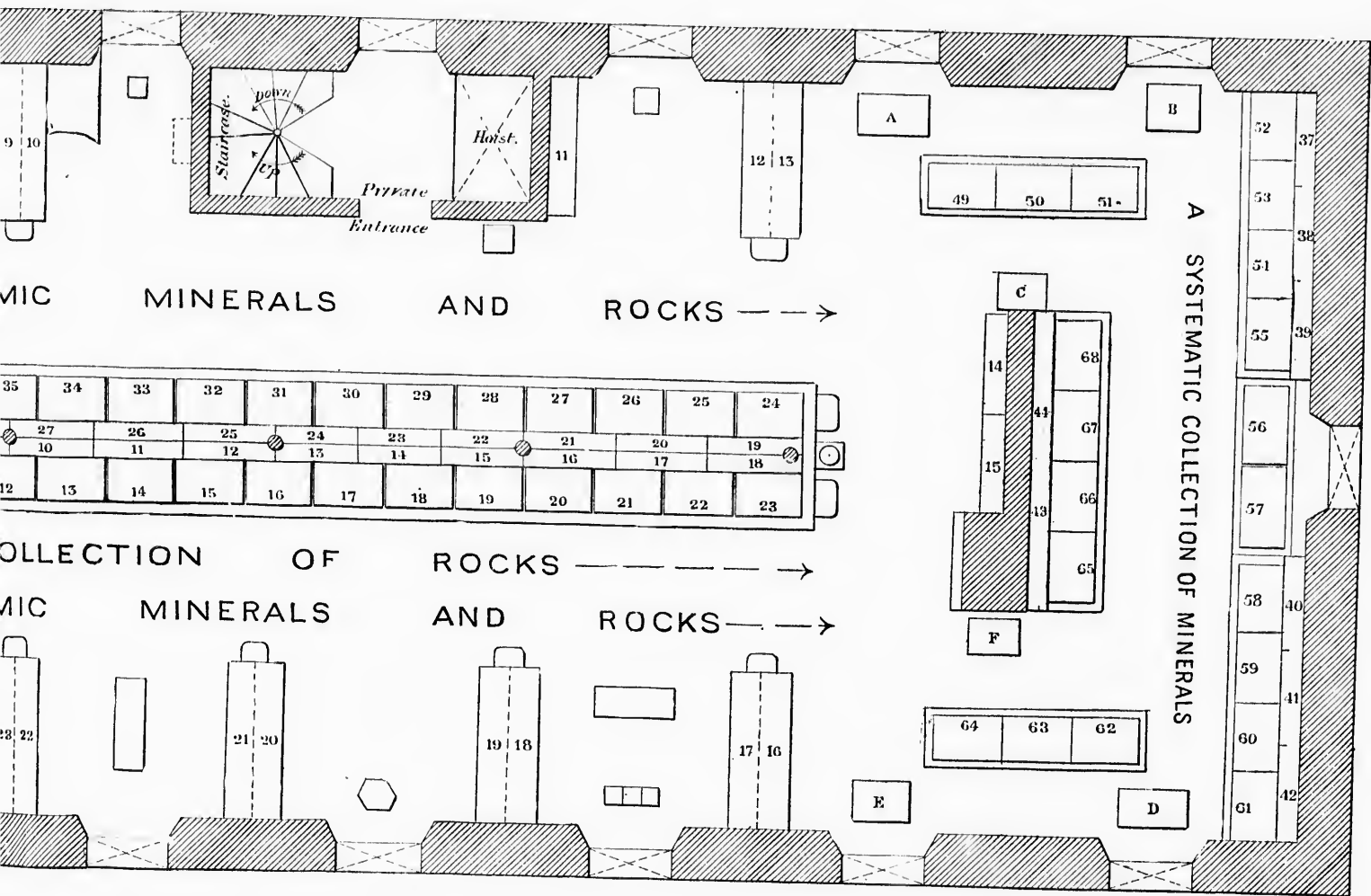
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CATALOGUE  
OF  
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OF THE  
GEOLOGICAL SURVEY OF CANADA

Embracing the Systematic Collection of Minerals and the  
Collections of Economic Minerals and Rocks and  
Specimens Illustrative of Structural Geology

BY

G. CHRISTIAN HOFFMANN, F. INST. CHEM., F.R.S.C.,

*Assistant Director, Chemist and Mineralogist to the Survey, and Curator of  
the Mineralogical and Lithological Section of the Museum.*

---

INTRODUCTORY REMARKS.

All the specimens shown in these collections are, without exception, from Canadian localities—hence the same may be justly regarded as fully illustrating the mineral resources of the Dominion, so far as these are known at present.

The minerals are arranged under two distinct headings—A., the Systematic Collection of Minerals, and B., the Collection of Economic Minerals. In the former, which illustrates the scientific classification of minerals, the specimens are arranged in accordance with the system followed in the sixth edition (1892) of Dana's "System of Mineralogy," whilst in the latter the classification is wholly technical, each mineral being arranged under a heading connected with some one of its more prominent applications. A synopsis of these classifications immediately precedes the collections to which they respectively refer.

In the Collection of Economic Minerals, the series of specimens of the various ores from some of the best known and most important deposits, is supplemented by another series illustrating the distribution of the mineral. This latter series when sufficiently extensive, as in the case of the iron ores, is arranged primarily, in accordance with the scientific classification and secondarily and subordinately, geographically, the specimens from the various provinces being placed upon different coloured grounds as specified under heading "Specimens illustrating the distribution of iron ores." There is also, in connection with the exhibits of apatite, graphite and the principal ores of iron, a suite of specimens showing the mineral associations of the same.

Owing to the limited space available for the display of the above mentioned collections, the disposition of the material, more especially in the case of the economic minerals, in a fairly satisfactory manner, has been beset by difficulties which could not, unfortunately, in all instances be overcome—as a result, related series of specimens are not always shown in such close juxtaposition as could be wished. The inconvenience caused by this is partly met by giving, as a side note, the designation and number of the case or cases in which each series of exhibits is shown, so that by referring to the accompanying diagram—which shows the relative position of the various cases and location of the main collections—it will be easy to find the exact position of the case or cases sought for, in the room. The numbers on the specimens correspond with those on their accompanying labels. These are in most instances very full, more especially in the collection of economic minerals, where they give the scientific and common name of the mineral, the locality whence it was obtained, geological formation (in most instances), name of the collector or donor and, in general, the date of collection.

Specimens having a higher number than 6549, are additions since the completion of this catalogue.

To facilitate reference from various points of view four indexes are appended. The first of these is an index to, and synopsis of the contents of, the various cases; the second, an index to the numbers on the specimens; the third, an index to mining districts, areas, camps, locations and claims, also to mines, quarries and pits; the fourth a very full index of subjects.

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## A.--SYSTEMATIC COLLECTION OF MINERALS.

This collection, which is located at the further end of the room, is shown in flat table-cases 49-68, and supplemental specimens, in connection with the same, in upright table-cases 37-44, and separate table-cases A, B, C, D, E and F.

The following is a synopsis of the system of classification employed. It is identical with that adopted in Dana's System of Mineralogy, sixth edition, 1892.

### I. NATIVE ELEMENTS.

### II. SULPHIDES, ARSENIDES, TELLURIDES (SELENIDES, ANTIMONIDES.)

- a. SULPHIDES.
- b. ARSENIDES.
- c. ARSENO-SULPHIDES.
- d. TELLURIDES.
- e. OXY-SULPHIDES.

### III. SULPHO-SALTS, SULPH-ANTIMONITES, SULPH-ARSENITES [SULPHO-BISMUTHITES.]

- a. SULPH-ANTIMONITES.
- b. SULPH-ARSENITES.

### IV. HALOIDS.—[CHLORIDES, BROMIDES, IODIDES], FLUORIDES.

### V. OXIDES.

- a. OXIDES OF SILICON.
- b. OXIDES OF THE METALS.

### VI. OXYGEN SALTS.

1. CARBONATES.
2. SILICATES,—TITANATES.
  - A. Anhydrous silicates.
    - a. *Disilicates, polysilicates.*
    - b. *Metasilicates.*
    - c. *Orthosilicates.*
    - d. *Subsilicates.*
  - B. Hydrated silicates.
    - a. *Zeolite division.*
    - b. *Mica division.*
    - c. *Serpentine and talc division.*
    - d. *Kaolin division.*
    - e. *Concluding division.*

VI.—OXYGEN SALTS *Continued.*

- C. Titanio-silicates, [titanates].  
 3. Niobates, tantalates.  
 4. Phosphates [arsenates, vanadates, antimonates],  
 sulphates.  
 5. Borates, uranates.  
 6. Sulphates, [chromates, tellurates].  
 7. Tungstates, [molybdates].

## VII.—[SALTS OF ORGANIC ACIDS: OXALATES, MELLATES, Etc.]

## VIII.—HYDROCARBON COMPOUNDS.

NOTE.—The combinations enclosed in brackets are, at present, unrepresented in the collection. The labels indicating the main divisions are printed on grey-toned paper; those showing the subdivisions on white.

Gra

Nati

Nati

Nati

Nati

Nati

Native

ATES, ANTIMONATES],

ES].

ES, MELLATES, Etc.]

at present, unrepresented  
ions are printed on grey.

## I.—NATIVE ELEMENTS.

- Graphite.**—Lot 3, range II, of Grenville, Argenteuil county, Q.—Coll., R. Bell, 1850. (1228.)
- columnar.—Lot 28, range V, of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1877. (1249.)
- Walker's property, Buckingham, Ottawa county, Q.—Coll., C. W. Willimott, 1889. (2048.)
- High Falls, Bowman, Ottawa county, Q.—Coll., E. D. Ingall, 1891. (5186.)
- Lochaber, Ottawa county, Q. (1254.)
- Native Sulphur** (resulting from the decomposition of pyrite).—Lot 3, range I, of Denbigh, Addington county, O. (1238.)
- Native Arsenic.**—Seven miles up Watson Creek, west side of the Fraser River, twenty-five miles above Lytton, B.C. (3421.)
- Native Antimony.**—Lot 28, range I, of South Ham, Wolfe county, Q.—Coll., J. Richardson, 1875. (1248.)
- with kermesite.—Lot 28, range I, of South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882. (1247.)
- Native Gold.**—Leary lead, Tangier, Halifax county, N.S.—Coll., A. R. C. Selwyn, 1870. (1230.)
- in dolomite.—Lot 15, range XIV, of Leeds, Megantic county, Q. (1231.)
- Chaudière River, Beauce county, Q. (1235.)
- Bonanza claim, Cayoosh Creek, near Lillooet, B.C.—Presented by F. Sones, 1891. (5390.)
- in hematite.—Clinton, B. C.—Presented by T. Elwyn, 1886. (5399.)
- nugget.—Nelson's claim, Upper Cherry Creek, Okanagan, B.C.—Presented by J. Fraser Torrance. (1233.)
- model of a nugget.—Mosquito Creek, Cariboo, B.C. (1232.)
- do do Keithly Creek, Cariboo, B.C. (1236.)
- Native Silver.**—Silver Islet, Lake Superior, district of Thunder Bay, O. (1237.)
- Rabbit Mountain mine, township of Paipoonge, district of Thunder Bay, O.—Presented by T. A. Keefer, 1884. (4960.)
- Silver Mountain mine, township of Lybster, district of Thunder Bay, O.—Presented by T. H. Trethewey, 1889. (5723.)
- model of a nugget.—Omenica, B.C. (1264.)
- Wellington mine, two miles north-east of Bear Lake, Kaslo-Slocan Road, West Kootanae, B.C.—Coll., E. D. Ingall, 1892. (1251.)
- Native Copper.**—Half a mile east of Horseshoe Cove, near Cape d'Or, Cumberland county, N.S.—Coll., Scott Barlow, 1876. (1244.)
- North shore of Minas Basin, Cumberland county, N.S.—Presented by Mr. Fairbanks, 1881. (1273.)
- Two Islands, Cumberland county, N.S.—Coll., S. Barlow, 1876. (1245.)
- Michipicoten Island, Lake Superior, O.—Coll., W. E. Logan, 1846. (1242.)
- St. Ignace Island, Lake Superior, O.—Coll., W. E. Logan, 1846. (1243.)

Table-case  
49.

I.—NATIVE ELEMENTS—*Continued.*

- Table-case 49. *Continued.*
- Native Copper.**—Fraser River, about thirty miles above Fort George, B.C.—Presented by H. Glassy, 1875. (1240.)
- Fraser River, nine miles below Spence's Bridge, B. C.—Coll., J. Richardson, 1875. (1246.)
- Vital Creek, Omineca district, B.C.—Presented by H. G. Hanks, (3443.)
- Native Mercury.**—Eastern entrance to Seshart Channel, Barclay Sound, Vancouver Island, B.C. (5990.)
- Arquerite.**—Vital Creek, Omineca district, B.C.—Presented by H. G. Hanks, (3442.)
- model of a nugget.—Vital Creek, Omineca district, B.C. (1211.)
- Native Platinum.**—Similkameen River, B.C.—Coll., G. M. Dawson, 1877. (1234.)
- Granite Creek, Tulameen River, B.C.—Presented by T. Elwyn, (5351.)
- North Saskatchewan River, neighbourhood of Edmonton, district of Alberta, N.W.T. (5611.)
- Native Iron.**—North shore—fifth concession, back of Campement d'Ours—of St. Joseph Island, Lake Huron, O. (5605.)

## II.—SULPHIDES, ARSENIDES, TELLURIDES, [SELENIDES, ANTIMONIDES.]

## A.—Sulphides.

- Stibnite.**—Parish of Prince William, York county, N.B.—Coll., L. W. Bailey, 1881. (1252.)
- crystals.—Parish of Prince William, York county, N.B.—Coll., W. Broad, 1880. (1256.)
- Lot 28, range I. of South Ham, Wolfe county, Q. (1257.)
- Near Foster's Bar, about twenty-three miles above Lytton, Fraser River, B.C.—Coll., G. M. Dawson, 1888. (5993.)
- Bismuthinite.**—Lot 34, range III. of Tudor, Hastings county, O.—Coll., H. G. Vennor, (1259.)
- Little Shuswap Lake, north side, a mile and three-quarters from head of lake, B.C.—Coll., G. M. Dawson, 1879. (1253.)
- Molybdenite.**—Lot 2, range III. of Arkfield, Pontiac county, Q.—Presented by R. H. G. Chapman, 1884. (5114.)
- Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q. (1261.)
- Lot 22, range II. of Ross, Renfrew county, O.—Coll., C. W. Willmott, 1882. (1262.)
- Argentite.**—Lot 3, range XIII. of Ascot, Sherbrooke county, Q. (1263.)
- with native silver.—Silver Islet, Lake Superior, O. (1271.)
- Beaver mine, township of O'Connor, district of Thunder Bay, O.—Presented by T. A. Keefer, 1887. (5467.)
- Silver Mountain mine, township of Lybster, district of Thunder Bay, O.—Presented by T. H. Trethewey, 1889. (6502.)
- 39 T mine, near Rabbit Mountain, township of Paipoonge, district of Thunder Bay, O.—Presented by T. A. Keefer, 1886. (6503.)
- with native gold.—Found in sluice boxes, thirteen miles above Granite Creek, Tulameen River, B.C.—Coll., G. M. Dawson, 1888. (5392.)

A.—Sulphides—Continued.

- Galenite.**—South side of Little Whale River, Hudson Bay. —Coll., R. Bell, 1877. (1394.) Table-ense  
 — with sphalerite. —Lot 10, range IV. of Calumet, Pontiac county, Q.— 50.—  
 Presented by W. H. Murphy, 1887. (5458.) Continued.  
 — Victoria mine, Garden River, near Sault Ste. Marie, district of  
 Algoma, O. —Coll., R. Bell, 1875. (1272.)  
 — Silver Islet, Lake Superior, O. —Presented by R. Trethewey, 1886.  
 (5115.)  
 — with sphalerite and dolomite. — Shuniah mine, township of McIntyre,  
 district of Thunder Bay, O. —Coll., A. R. C. Selwyn, 1872.  
 (1274.)
- Chalcocite.**—Grand Manan Island, Charlotte county, N. B.—Coll., L. W. Bailey.  
 (1292.)  
 — Lot 15, range XIV. of Leeds, Megantic county, Q. (1288.)  
 — Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.  
 (1291.)  
 — Bruce Mines, Lake Huron, district of Algoma, O. (1289.)
- Sphalerite.**—Albion Mines, Pictou county, N. S.—Presented by H. S. Poole,  
 1891. (6505.)  
 — Niagara Falls, Welland county, O. —Coll., R. Bell, 1859. (1281.)  
 — Lot 1, range VII. of Marlow, Beauce county, Q. —Coll., W. F.  
 Ferrier, 1891. (1241.)  
 — Kaministiquia River, district of Thunder Bay, O. —Coll., A. Murray,  
 1846. (1234.)  
 — North side (about seven miles inland) of Burrard Inlet, opposite  
 Vancouver, B. C. (6506.)
- Metacinnabarite** (and cinnabar).—Timothy claim, west side of Read Island,  
 north-east coast of Vancouver Island, B. C. (5608.)
- Cinnabar.**—Ebenzer mine, Hector (Kicking Horse) Pass, two and a half miles  
 east of Golden, Rocky Mountains, B. C.—Coll., R. G. McConnell, 1886.  
 (5333.)  
 — "Rosebush" claim, near the mouth of Copper Creek, Kamloops  
 Lake, B. C.—Coll., E. D. Ingall, 1892. (1632.)  
 — North side of Homathcoo River, B. C.—Presented by G. Webb, 1876.  
 (1295.)  
 — Eastern entrance to Seshart Channel, Barclay Sound, Vancouver  
 Island, B. C.—Presented by J. F. Claxton, 1891. (5991.)
- Millerite.**—Lot 6, range XII Orford, Sherbrooke county, Q.—Coll., C. W.  
 Willimott, 1882. (1293.)
- Niccolite.**—3 A mine, township of McGregor, district of Thunder Bay, O.—Pre-  
 sented by Judge Van Norman, 1875. (6517.)  
 — with gersdorffite.—Lot 12, range III. of Denison, district of  
 Algoma, O.—Coll., A. E. Barlow, 1892. (3478.)
- Pyrrhotite.**—Three miles north of St. Stephen, Charlotte county, N. B. (6527.)  
 — Lot 19, range II. of Elizabethtown, Leeds county, O. —Coll., B. J.  
 Harrington, 1874. (1296, 1299.)
- Polydymite.**—Vermilion mine, lot 5 (and 6) range IV. of Denison, district of  
 Algoma, O.—Presented by F. L. Sperry, 1891. (5618.)
- Bornite.**—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—  
 Coll., C. W. Willimott, 1882. (1278.)  
 — Bruce Mines, Lake Huron, district of Algoma, O. —Coll., A. Murray  
 1860. (1279.)
- Chalcopyrite.**—Polson's Lake, Antigonish county, N. S.—Coll., A. R. C.  
 Selwyn, 1876. (1309.)

**A.—Sulphides—Continued.**

- Table-case 50.—  
Continued.
- Chalcopyrite.**—Lot 28, range IV. of Ham, Wolf county, Q.—Coll., J. Richardson. (1310.)
- Echo Lake, district of Algoma, O. (1311.)
- with bornite.—Bruce Mines, Lake Huron, district of Algoma, O.—Coll., A. Murray, 1860. (6513.)
- Pyrite.**—From Head of Eckstall Inlet, south of Port Essington, Skeena River, B.C. (5107.)
- Lot 19, range II. of Elizabethtown, Leeds county, O.—Coll., B. J. Harrington, 1874. (1300, 1305.)
- West of Swan Creek, Cumberland county, N. S.—Coll., C. W. Willimott, 1888. (5659.)
- Lot 3, range XIII. of Ascot, Sherbrooke county, Q.—Coll., C. W. Willimott, 1882. (1299.)
- Lot 18, range II. of Wakefield, Ottawa county, Q.—Presented by J. Robertson, 1882. (5473.)
- Lot 12, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883. (1277.)
- Table-case 51.
- St. Foy road, Quebec, Quebec county, Q. (1303.)
- Devils Lake, Bedford, Frontenac county, O.—Coll., H. G. Vennor. (1304.)
- Flint Island, Hudson Bay.—Coll., R. Bell, 1877. (6507.)
- Cape Chatte, Gaspé county, Q. (1306.)
- One mile west of Grand Michin, Rimouski county, Q.—Coll., T. C. Weston, 1878. (4531.)
- nodular concretion.—From the Cretaceous shales, Peace River, N. W. T.—Presented by W. Pyke, 1892. (5614.)
- Marcasite.**—Loc. ? (1307.)

**B.—Arsenides.**

- Smaltite.**—McKim, district of Nipissing, O. (5472.)
- Sperrylite.**—Vermilion mine, lot 6, range IV. of Denison, district of Algoma, O.—Presented by F. L. Sperry, 1890. (1846.)

**C.—Arseno-sulphides.**

- Gersdorffite** with chalcopyrite.—Lot 12, range III. of Denison, district of Algoma, O.—Coll., A. E. Barlow, 1892. (2586.)
- with niccolite and chalcopyrite.—Lot 12, range III. of Denison, district of Algoma, O.—Coll., A. E. Barlow, 1892. (5642.)
- Arsenopyrite.**—Gatling mine, lot 9, range VIII. of Marmor, Hastings county, O.—Coll., C. W. Willimott, 1888. (1312.)
- Marmor, Hastings county, O.—Coll., H. G. Vennor, 1870. (6512.)
- Caledonia Gold Field, Queen's county, N. S.—Coll., A. R. C. Selwyn, 1891. (3740.)
- Danaite.**—North half of lot 6, range III. of Graham, District of Algoma, O.—D. L. McLean, 1891. (5621.)

**D.—Tellurides.**

- Sylvanite** with argentite and chalcopyrite.—Huronian gold mine, lot H 1, township of Moss, district of Thunder Bay, O.—Coll., A. R. C. Selwyn, 1883. (1353.)

**E.—Oxysulphides.**

- Kermesite.**—Lot 28, range I. of South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882. (4514.)

county, Q.—Coll., J. Richard-

1.)

n, district of Algoma, O.—

Essington, Skeema River,

is county, O.—Coll., B. J.

nty, N. S.—Coll., C. W.

county, Q.—Coll., C. W.

county, Q.—Presented by

county, Q.—Coll., C. W.

(1303.)

O.—Coll., H. G. Vennor.

l, 1877. (6507.)

i county, Q.—Coll., T. C.

ous shales, Peace River,

1892. (5614.)

nison, district of Algoma,

0. (1846.)

of Denison, district of

892. (2586.)

2, range III. of Denison,

E. Barlow, 1892. (5642.)

arnora, Hastings county,

(1312.)

G. Vennor, 1870. (6512.)

N. S.—Coll., A. R. C.

District of Algoma, O.—

an gold mine, lot H J,

der Bay, O.—Coll., A. R.

county, Q.—Coll., C. W.

### III.—SULPHO-SALTS. — SULPH-ANTIMONITES, SULPH-ARSENITES, [SULPHO-BISMUTHITES.]

#### A.—Sulph-antimonites.

**Jamesonite.**—Vermont Creek, Middle Fork of the Spillimichene River, B.C.—Presented by W. A. Jowett, 1891. (6518.) Table-case  
51.—  
Continued.

— “Syenite Bluff” claim, Deception Creek, Middle Fork of the Spillimichene River, East Kootanie, B.C.—Coll., G. M. Dawson, 1889. (6523.)

**Bournonite.**—East half of lot 22, range III. of Darling, Lanark county, O. (3484.)

**Tetrahedrite.**—From near Foster's Bar, about twenty-three miles above Lytton, Fraser River, B.C. (4621.)

-- Lot 3, range IX. of Ascot, Sherbrooke county, Q.—Presented by B. J. Harrington, 1884. (1315.)

**Meneghinite.**—Marble Lake, Barrie, Frontenac county, O.—Presented by B. J. Harrington, 1884. (4909.)

#### B.—Sulph-arsenites.

**Tennantite.**—Lot 2, range IX. of Ascot, Sherbrooke county, Q.—Presented by B. J. Harrington, 1884. (4910.)

— Lot 9, range IX. of Barrie, Frontenac county, O. (5586.)

### IV.—HALOIDS. — [CHLORIDES, BROMIDES, IODIDES], FLUORIDES.

#### Fluorides.

**Fluorite.**—Lot 15, range I. of Templeton, Ottawa county, Q.—Presented by Joseph Brulé, 1889. (1959.)

— Lot 7, range X. of Hull, Ottawa county, Q.—Coll., B. J. Harrington, 1878. (1323.)

— Lot 31, range I. of Villeneuve, Ottawa county, Q.—Coll., C. W. Willimott, 1891. (1318.)

— Lot 5, range I. of Ross, Renfrew county, O.—Coll., C. W. Willimott, 1891. (370.)

— with dolomite.—Barton, near Hamilton, Wentworth county, O.—Presented by Col. Grant. (1319.)

— McKenzie's River, district of Thunder Bay, O.—Coll., R. Bell, 1875. (1316.)

— Fluor Island, Lake Superior, district of Thunder Bay, O.—Coll., W. E. Logan, 1846. (1320, 1321.)

### V.—OXIDES.

#### A.—Oxides of Silicon.

**Quartz.**—Lot 31, range I. of Villeneuve, Ottawa county, Q.—Coll., C. W. Willimott, 1887. (5480.)

## A.—Oxides of Silicon—Continued.

- Table-case 51.—  
*Continued.*
- Quartz.**—Lot 12, range XII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878. (1381.)
- amethystine.—Thunder Bay, Lake Superior, O. (1382, 5495.)
- Digby Neck, Digby county, N.S.—Coll., H. How, 1868. (1379.)
- with calcite.—Below Grand Valley river, Gaspé county, Q.—Coll., T. C. Weston, 1878. (1374.)
- Harvey Hill, lot 17, range XV. of Leeds, Megantic county, Q. (1376.)
- Lot 31, range I. of Portland, Ottawa county, Q.—Presented by J. G. Miller. (4516.)
- Garthby, Wolfe county, Q.—Coll., C. W. Willimott, 1882. (4517.)
- McLeod's location, Lake Superior, O.—Coll., W. E. Logan, 1846. (1377.)
- Copper mine, between Howe Sound and Jervis Inlet, B.C.—Coll., G. M. Dawson, 1885. (5184.)
- Table-case 52.
- Little Whale River, Hudson Bay.—Coll., R. Bell, 1877. (1739.)
- Lac aux Des, Portneuf county, Q.—Coll., A. P. Low, 1891. (5225.)
- Loc. ? (5638.)
- Kamloops, B.C.—Coll., G. M. Dawson. (1380.)
- Chalcedony.**—Scott's Bay, King's county, N. S.—Coll., C. W. Willimott, 1883. (1378.)
- Spencer Island, Cumberland county, N. S.—Coll., C. W. Willimott, 1888. (5705.)
- South side of Masset Inlet, Queen Charlotte Islands, B. C.—Coll., G. M. Dawson, 1878. (4519.)
- North of Little Whale River, Hudson Bay.—Coll., R. Bell, 1877. (1736.)
- Belanger's Island, east coast of Hudson Bay.—Coll., R. Bell, 1877. (4518.)
- Prase.**—Mountains at the head of Nicoamen River, B. C.—Coll., G. M. Dawson, 1889. (1260.)
- Agate.**—Two Islands, Cumberland county, N. S.—Coll., C. W. Willimott, 1883. (1384.)
- Big Island, Two Islands, Cumberland county, N. S.—Coll., C. W. Willimott, 1888. (5675.)
- moss. Two Islands, Cumberland county, N. S.—Coll., C. W. Willimott, 1888. (5679.)
- Cape Blomidon, King's county, N. S.—Coll., C. W. Willimott, 1883. (1308.)
- Thunder Bay, Lake Superior, O. (1385.)
- Fishing Cove Camp, west of Richmond Gulf, Hudson Bay.—Coll., R. Bell, 1877. (1737.)
- Jasper.**—Woodworth Cove, King's county, N. S.—Coll., R. W. Ellis, 1876. (4546.)
- Digby Neck, Digby county, N. S.—Coll., H. How, 1868. (1390.)
- Victoria Harbour, King's county, N. S.—Coll., C. W. Willimott, 1883. (4549.)
- Two Islands, Cumberland county, N. S.—Coll., C. W. Willimott, 1883. (1389.)
- Point la Lime, Restigouche county, N. B.—Coll., H. P. Brunell, 1882. (1412.)
- Rivière duelle, Kamouraska county, Q.—Coll., J. Richardson. (1387.)



**A.—Oxides of Siliceon—Continued.**

- Jasper.**—Lot 15, range X, of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1883. (4547.) Table-case  
52.  
 — Gleason Landing, Stikkeen River, B. C.—Presented by Capt. Irvine, 1874. (4520.) Continued
- Pseudomorphous quartz** (after chabazite).—Horse-shoe Cove, Cape d'Or, Cumberland county, N. S.—Coll., C. W. Willimott, 1888. (5670.)
- Silicified wood.**—Long Lake, district of Assiniboia, N. W. T.—Presented by W. Dickson, 1890. (2065.)  
 — Ross Conlee, Irvine, district of Assiniboia, N. W. T.—Coll., T. C. Weston. (5494.)
- Opal** var. common. Savona Mountain, south of Savona station, C. P. R., B. C.—Coll., G. M. Dawson, 1890. (5988.)  
 — var. eaccholong. Two Islands, Cumberland county, N. S.—Coll., C. W. Willimott, 1892. (1386.)  
 — var. hyalite. Near Hi-him Lake, south of Loon Lake, B. C.—Coll., J. McEvoy, 1888. (1609.)  
 — var. tripolite. Head of Loon Lake, B. C. (5645.)  
 — do do Fountain Lake, Amherst, Cumberland county, N. S.—Presented by A. Mackenzie, 1885. (5750.)

**B.—Oxides of the Metals.**

- Senarmontite.**—Lot 28, range I, of South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882. (1371.)
- Valentinite.**—Lot 28, range I, of South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882. (1327, 4515.)
- Molybdite.**—Lot 22, range II, of Ross, Renfrew county, O.—Coll., C. W. Willimott, 1882. (1732.)
- Tungstite.**—Lot 1, range VII, of Marlow, Beauce county, O.—Coll., W. E. Ferrier, 1891. (1210.)
- Cuprite.**—Spencer Island, Cumberland county, N. S.—Coll., C. W. Willimott, 1888. (5984.)
- Hematite.**—Jacksonville, Carleton county, N. B.—Coll., R. W. Ellis, 1874. (1335.)  
 — Lot 2, range IV, of Elzevir, Hastings county, O.—Coll., H. G. Vemor. (1336.)  
 — Lot 12, range V, of Madoc, Hastings county, O.—Coll., C. W. Willimott, 1885. (1725.)  
 — Leeds, Leeds county, O. (1332.)  
 — fossiliferous.—Lot 11, range I, of West Flamborough, Wentworth county, O.—Coll., R. Bell, 1861. (1334.)  
 — Batchewahung Bay, district of Algoma, O.—Coll., T. Macfarlane, 1865. (1333.)  
 — Silver Lake, township of McTavish, district of Thunder Bay, O.—Coll., R. Bell, 1875. (1338.)  
 — var. specular iron.—Lot 22, range III, of Shefford, Shefford county, Q.—Presented by J. A. Leatch, 1886. (1363.)  
 — var. specular iron.—Lot 15, St. Armand West, Missisquoi county, Q.—(1331.)  
 — var. specular iron.—Salmon River, Guysborough county, N. S.—Coll., H. Fletcher, 1883. (1367.)  
 — var. specular iron.—Lot 28, range VI, of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1874. (1294, 1354.) Table-case  
53.

## B.—Oxides of the Metals—Continued.

- Table-case 53.—  
Continued.
- Hematite.**—var. specular iron, and magnetite.—Lot 28, range VI. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1874. (1325.)  
— var. micaceous iron ore.—Sutton, Brome county, Q. (1328.)
- Martite.**—North Mountain Digby Neck, Digby county, N.S.—Coll., H. How, 1868. (1339, 1340.)  
— Dalhousie mine, lot I, range IV. of Dalhousie, Lanark county, O.—Presented by A. M. Campbell, 1890. (5978.)
- Ilmenite.**—Chegoggin Point, Yarmouth, Yarmouth county, N.S.—Coll., L. W. Bailey, 1892. (1537.)  
— St. Urbain, Bay St. Paul, Charlevoix county, Q. (1341.)  
— with rutile.—St. Urbain, Bay St. Paul, Charlevoix county, Q.—(1342.)
- Spinel.**—Bathurst, Lanark county, O. (1345, 1346.)  
— disseminated through crystalline limestone.—Lot 16, range X. of Portland West, Ottawa county, Q. (4714.)  
— Lot 7, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (4584.)
- Magnetite.**—Lot 11, range V. of Madoc, Hastings county, O.—Coll., C. W. Willimott, 1883. (1351.)  
— Portage du Fort, Pontiac county, Q.—Coll., H. G. Vennor. (1347.)  
— North Mountain, seven miles west of Digby, Digby county, N.S.—Coll., H. How, 1868. (1348.)  
— Mount Hanly, Annapolis county, N.S.—Coll., H. How, 1868. (1352.)  
— Lot 9, range IX. of Sutton, Brome county, Q. (1349.)  
— Bathurst, Lanark county, O. (1350.)
- Chromite.**—Mount Albert, Shickshock Mountains, Gaspé county, Q.—Coll., J. Richardson, 1858. (1355.)  
— with serpentine.—South Ham, Wolfe county, Q.—Coll., J. Richardson. (1356.)  
— Lot 21, range II. of South Ham, Wolfe county, Q.—Coll., J. Richardson. (1357.)
- Rutile.**—Lot 12, range XI. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1874. (1358.)  
— Sutton, Brome county, Q.—Coll., J. Richardson. (1359.)
- Pyrolusite.**—Markhamville, King's county, N.B. (1364.)  
— Teny Cape, Hants county, N.S.—Coll., C. W. Willimott, 1883. (1360, 4539, 4542.)  
— Churchill's mine, Walton, Hants county, N.S.—Coll., C. W. Willimott, 1883. (4540.)
- Turgite.**—Teny Cape, Hants county, N.S.—Coll., C. W. Willimott, 1883. (5979.)
- Göthite.**—Black Rock, near the mouth of the Shubenacadie River, Colchester county, N.S.—Coll., B. J. Harrington, 1874. (1365.)
- Manganite.**—Teny Cape, Hants county, N.S.—Coll., C. W. Willimott, 1883. (1317, 4541.)
- Table-case 54.  
34.
- Limonite.**—Acadia Mines, Londonderry, Colchester county, N.S.—Coll., A. R. C. Selwyn, 1872. (379, 2053.)  
— var. bog iron ore.—Lac la Tortue, Champlain county, Q.—Coll., H. P. Brumell, 1892. (1322.)  
— var. bog iron ore.—St. Vallier, Bellechasse county, Q. (1369.)  
— var. bog iron ore.—Darling, Lanark county, O.—Presented by W. H. Wylie. (4545.)

28, range VI. of Temple-  
J. Harrington, 1874.

county, Q. (1328.)

ty, N.S.—Coll., H. How,

isie, Lanark county, O.—  
(5978.)

county, N.S.—Coll., L. W.

ty, Q. (1341.)

(Charlevoix county, Q.—

me.—Lot 16, range X. of  
(4714.)

county, Q.—Coll., C. W.

county, O.—Coll., C. W.

., H. G. Vennor. (1347.)

ty, Digby county, N.S.—

—Coll., H. How, 1868.

Q. (1349.)

spé county, Q.—Coll., J.

ty, Q.—Coll., J. Richard-

ty, Q.—Coll., B. J. Har-

rdson. (1359.)

(4.)

C. W. Willimott, 1883.

S.—Coll., C. W. Willi-

C. W. Willimott, 1883.

acadie River, Colchester

on, 1874. (1365.)

, C. W. Willimott, 1883.

county, N. S.—Coll., A.

plain county, Q.—Coll.,

county, Q. (1369.)

, O.—Presented by W.

### B.—Oxides of the Metals—Continued.

- Limonite.**—var. bog iron ore.—Texada Island, B. C.—Presented by John Campbell, 1891. (5340.)
- Psilomelane.**—Gowland Mountain, Elgin, Albert county, N. B.—Presented by J. L. Harris, 1885. (5040.)
- Wad.**—Dawson Settlement, Hillsborough, Albert county, N. B.—Coll., H. P. Brunell, 1892. (1370.)

Table-case  
54.—  
Continued.

## VI.—OXYGEN SALTS.

### I.—Carbonates.

- Calcite.** mas.—Lot 6, range XII. of Orford, Sherbrooke county, Q.—Coll., C. W. Willimott. (5544.)
- mas. purplish.—Markhamville, King's county, N. B.—Coll., H. P. Brunell, 1891. (1672.)
- mas. yellow.—Lot 14, range XI. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1874. (1664.)
- mas. blue.—Grand Falls, Calumet Island, Pontiac county, Q.—Coll., C. W. Willimott, 1879. (1670.)
- mas. salmon red.—Grand Falls, Calumet Island, Pontiac county, Q.—Coll., C. W. Willimott, 1879. (1676.)
- mas. salmon red.—Lake Clear, Sebastopol, Renfrew county, O.—Presented by J. G. Miller, 1882. (1724.)
- mas. brown.—Point Porphyry, Lake Superior, O. (1671.)
- mas. with native copper.—St. Ignace Island, Lake Superior, O.—Coll., W. E. Logan, 1846. (1655.)
- fibrous.—Lot 8, range IX. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1879. (1667.)
- mas. fetid, with tourmaline.—Lot 10, range XI. of Chatham, Argenteuil county, Q.—Coll., C. W. Willimott, 1882. (1668.)
- crys.—Montreal, Hochelaga county, Q. (1660, 1663.)
- crys.—Partridge Island, Cumberland county, N. S.—Coll., C. W. Willimott, 1888. (5669.)
- crys.—West of Swan Creek, Cumberland county, N. S.—Coll., C. W. Willimott, 1888. (5671.)
- crys.—New Quarries, Hull, Ottawa county, Q.—Coll., H. M. Ami, 1888. (5683.)
- crys.—Five Islands, Colchester county, N. S.—Coll., S. Barlow, 1875. (1654.)
- crys.—Chapel Point, N. B. (1674.)
- crys.—Near Point Porphyry, Lake Superior, O. (1658.)
- crys.—Loc. (?). (1659.)
- crys.—Thunder Bay, Lake Superior, O. (1652.)
- crys.—Beaver mine, township of O'Connor, district of Thunder Bay, Lake Superior, O.—Presented by T. A. Keefer, 1886. (6508.)
- rad.—South side of Albright Island, Magdalen Islands, Q.—Coll., J. Richardson, 1881. (3543.)
- crys.—Belly River, district of Alberta, N. W. T.—Coll., G. M. Dawson, 1881. (4619.)
- var. dog-tooth spar.—Five Islands, Colchester county, N. S.—Coll., S. Barlow, 1875. (1657, 1666.)

## I. Carbonates—Continued.

- Table-case 54. —  
*Continued.*
- Calcite.**—var. dog-tooth spar.—Orford nickel mine, lot 6, range XII. of Orford, Sherbrooke county, Q.—Coll., C. W. Willimott. (1669.)
- var. dog-tooth spar.—Niagara Falls, Welland county, O.—Coll., R. Bell, 1859. (1653.)
- var. dog-tooth spar.—Teny Cape, Hants county, N.S.—Coll., C. W. Willimott, 1883. (4622.)
- var. nail-head spar.—Teny Cape, Hants county, N.S.—Coll., C. W. Willimott, 1883. (1661.)
- var. nail-head spar.—Belly River, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1881. (1662.)
- Calcareous tufa.**—Tobique River, above Plaster Rock, Victoria county, N.B.—Coll., W. McInnes, 1886. (6511.)
- Dundas, Wentworth county, O.—Coll., R. Bell, 1859. (1679.)
- Dundas, Wentworth county, O.—Coll., R. Bell, 1859. (1682, 1683, 1684.)
- Cayuga, Haldimand county, O.—Coll., R. Bell, 1859. (1678, 4625.)
- Caledon, Peel county, O.—(1677, 1680.)
- Dolomite.**—Lot 10, range IV. of Aldfield, Pontiac county, Q.—Presented by R. H. G. Chapman, 1885. (1685.)
- with calcite.—Niagara Falls, Welland county, O.—Coll., R. Bell, 1859. (1687.)
- Niagara Falls, Welland county, O.—Coll., R. Bell, 1859. (1688, 1690.)
- Ankerite.**—Acton, Bagot county, Q.—Coll., J. Richardson. (1692.)
- Cumberland Brook, Acadia mines, Londonderry, Colechester county, N.S.—Coll., C. W. Willimott, 1883. (1693.)
- Magnesite.**—Lot 17, range IX. of Bolton, Bromé county, Q.—Coll., J. Richardson. (1694.)
- Siderite.**—Sutherland's River, Picton county, N.S.—Coll., B. J. Harrington, 1874. (1697.)
- New Mines, Acadia mines, Londonderry, Colechester county, N.S.—Coll., A. E. Barlow, 1884. (4970.)
- Cow Bay, Cape Breton county, N.S.—Coll., H. Fletcher, 1874. (1708.)
- Flint Island, Hudson Bay.—Coll., R. Bell, 1877. (1733.)
- Clay iron-stone.**—Cow Bay, Cape Breton county, N.S.—Coll., H. Fletcher, 1875. (2091.)
- Edmonton, district of Alberta, N.W.T.—Coll., R. W. Ellis, 1875. (1696.)
- Witherite.**—Porcupine (Twin Cities) mine, township of Gillies, district of Thunder Bay, O.—Coll., E. D. Ingall, 1886. (1681.)
- Strontianite.**—Nepean, Carleton county, O.—Presented by C. P. Willimott & Co., 1890. (6500.)
- Cerussite.**—Wellington mine, vicinity of Bear Lake, on the Kaslo-Slocan Road, West Kootanie, B.C.—Presented by Hector McRae, 1892. (5227.)
- Malachite.**—Lot 9, range IX. of Sutton, Bromé county, Q.—Coll., C. W. Willimott, 1882. (1686.)
- Azurite** on chalcopyrite.—Killaly's location, Lake Huron, district of Algoma, O.—(1699.)
- Dawsonite** on feldspathic trap.—From near the western end of McGill College, Montreal, Hochelaga county, Q.—Coll., B. J. Harrington. (1698.)

## 2.—Silicates. Titanates.

## A.—ANHYDROUS SILICATES.

## A.—Disilicates, Polysilicates.

- Orthoclase**, mas.—From the coast of Labrador. (1495.)  
 — mas. River Bayonne, Berthier county, Q. (1485.)  
 — mas. River Rouge, Argenteuil county, Q. (1482.)  
 — mas. North Crosby, Leeds county, O. (1484.)  
 — mas. (aventurine). Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll. C. W. Willmott, 1883. (1420.)  
 — crys.—Lot 21, range VII. of Buckingham, Ottawa county, Q.—Coll. H. G. Vennor, 1877. (1490.)  
 — crys.—Lot 31, range I. of Villeneuve, Ottawa county, Q.—Coll. C. W. Willmott, 1891. (1493.)  
 — crys.—Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll. C. W. Willmott, 1883. (1483, 4827, 4845.)
- Perthite**.—Lot 4, range VI. of North Burgess, Lanark county, O.—Coll. C. W. Willmott, 1883. (1494, 4580.)
- Microcline**.—Lot 31, range I. of Villeneuve, Ottawa county, Q.—Presented by L. H. Shirley, 1886. (5285.)  
 — var. Amazonstone.—Hull, Ottawa county, Q.—Presented by Mr. Garrett. (1491.)  
 — var. Amazonstone.—Lot 6, range A of Cameron, district of Nipissing, O.—Coll. C. W. Willmott, 1891. (4583.)
- Albite**, mas.—Lot 20, range V. of Buckingham, Ottawa county, Q.—Coll. C. W. Willmott, 1882. (1230.)  
 — mas.—North Burgess, Lanark county, O. (1368.)  
 — crys.—Lot 31, range I. of Villeneuve, Ottawa county, Q.—Coll. C. W. Willmott, 1891. (5512.)  
 — mas.—Lot 31, range I. of Villeneuve, Ottawa county, Q.—Presented by L. H. Shirley, 1886. (4559.)  
 — crys.—Rathwell's lot, Bromley, Renfrew county, O.—Coll. C. W. Willmott, 1891. (1489.)  
 — crys.—Lot 5, range I. of Ross, Renfrew county, O.—Coll. C. W. Willmott, 1891. (1492.)  
 — var. peristerite.—Lot 19, range IX. of Bathurst, Lanark county, O. (1481.)
- Oligoclase**.—Mount Johnson, Iberville county, Q. (1488.)  
 — Lot 12, range XVI. of Hull, Ottawa county, Q.—Coll. C. W. Willmott, 1882. (3546.)  
 — Lot 8, range III. of Dryden, district of Nipissing, O.—Coll. A. E. Barlow, 1890. (5985.)
- Andesite**.—Château Richer, Montmorency county, Q. (1486.)
- Labradorite**.—Labrador. (1479.)  
 — River Peribonka, about thirty miles from the entrance to Lake St. John, Chicoutimi county, Q.—Coll. F. D. Adams, 1884. (4944.)
- Anorthite**.—Yamaska Mountain, Yamaska county, Q. (1487.)
- Huronite**.—Timber limit 90, a quarter of a mile north of Murphy Lake, district of Algoma, O.—Coll. A. E. Barlow, 1891. (1691.)  
 — From between Loch Aich and Missinabi stations, C.P.R., district of Algoma, O.—Coll. B. J. Harrington. (5277.)

Table-ense  
55.  
Continued.Table-ense  
56.

## 2. — Silicates.—Titanates.—Continued.

## B.—Metasilicates.

Table-case 56.— Continued.	<b>Hypersthene</b>	Labrador. Coll., T. Sterry Hunt, 1869. (1392.)
	—	(Paullit).—Paul Island, Nain, Labrador.—Coll., R. Bell, 1884. (5274.)
	—	From the vicinity of Hébertville, township of Labarre, Chicoutimi county, Q.—Coll., F. D. Adams, 1883. (1705.)
	<b>Pyroxene.</b>	—Lot 10, range V. of Grenville, Argenteuil county, Q. (396.)
	—	Lot 6, range I. of Portland, Ottawa county, Q. (1404.)
	—	var. diopside.—Lot 6, range XII. of Orford, Sherbrooke county, Q.—Coll., C. W. Willimott, 1884. (5496-5498.)
	—	var. diopside.—Lot 6, range XII. of Orford, Sherbrooke county, Q.—Coll., C. W. Willimott, 1882. (1403, 1707, 1723.)
	—	Ste. Anne des Monts, Gaspé county, Q. (1408.)
	—	Grand Falls, Calumet Island, Pontiac county, Q. (1407, 1413.)
	—	var. diopside.—Ragged Chute, Madawaska River, Blythfield, Renfrew county, O. (1398.)
	—	Grenville, Argenteuil county, Q. (1402.)
	—	Emerald mine, lot 19, range XII. of Buckingham, Ottawa county, Q.—Coll., C. W. Willimott, 1889. (1750.)
	—	Lot 12, range XV. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1890. (6516.)
	—	South half lot 11, range XV. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1870. (247.)
	—	Lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (4522.)
Table-case 57.	—	Lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883. (4524.)
	—	twin crystal.—Lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883. (6514.)
	—	Lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883. (6515.)
	—	Lot 6, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (562.)
	—	Lot 7, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott. (3326.)
	—	Haycock mine, lot 28, range VI. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878. (1414.)
	—	Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878. (1400.)
	—	Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1884. (1409, 4847, 4861.)
	—	Island D, Lake Clear, Sebastopol, Renfrew county, O.—Presented by J. G. Miller, 1882. (4521, 4525.)
	—	Toomah Bay, Bob's Lake, Belford, Frontenac county, O.—Presented by W. J. Morris. (1406.)
	—	Lot 2, range IX. of North Burgess, Lanark county, O. (1399.)
	—	Bathurst, Lanark county, O. (1401.)
	—	var. diallage.—Orford, Sherbrooke county, Q. (1395.)
	—	var. augite.—Montreal, Hochelaga county, Q. (1416.)
	<b>Wollastonite.</b>	—Lot 10, range V. of Grenville, Argenteuil county, Q.—Coll., C. W. Willimott, 1878. (1396.)
	—	Lot 7, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1891. (1480.)

Pectolite

Amphibole

Beryl.—Beryl

C.—

Sodalite.—

2.—Silicates. Titanates. Continued.

B.—Metasilicates. — Continued.

**Pectolite.**—McKellar's (Cathcart) Point, Lake Superior, O.—Coll., W. E. Logan, 1840. (1517.)

Table-case  
57.—  
Continued.

**Amphibole** (hornblende).—From the vicinity of Foster's Bar, about 23 miles above Lytton, Fraser River, B.C. (1270.)

— (hornblende).—Lot 17, range IX. of Templeton, Ottawa county, Q. (1423.)

— (hornblende).—Grand Falls, Calumet Island, Pontiac county, Q. (1418.)

— (hornblende).—Blythfield, Renfrew county, O. (1419.)

— (hornblende).—Lot 7, range IX. of Ross, Renfrew county, O.—Coll., C. W. Willimott, 1883. (4535.)

— (hornblende).—Lot 12, range XVI. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (4554.)

— (hornblende).—Lot 17, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (1421.)

— (hornblende).—Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1882. (1410.)

— (hornblende).—Lot 21, range IX. of Bedford, Frontenac county, O.—Coll., H. G. Vennor. (1426.)

— (hornblende).—Eight portage, Wabinoah River, Lake Nipigon, O.—Coll., R. Bell, 1871. (1429.)

var. tremolite. —North Burgess, Lanark county, O. (1427.)

var. tremolite.—Lot 23, range IV. of Ross, Renfrew county, O.—Coll., C. W. Willimott, 1883. (1428, 5501.)

var. raphilite.—West half of lot 26, range XII. of Bathurst, Lanark county, O.—Coll., C. W. Willimott, 1892. (1276.)

var. raphilite.—Dalhousie, Lanark county, O. (1430.)

var. actinolite.—Frampton, Dorchester county, Q. (2391.)

var. actinolite.—Westmeath, Renfrew county, O. (1298.)

var. nephrite.—Near Miles Cañon, Lewis River, a tributary of the

Yukon River, N.W.T.—Coll., W. Ogilvie, 1887. (2106.)

var. asbestos.—Potton, Brome county, Q. (1431.)

var. asbestos.—Marmoras, Hastings county, O. (1432.)

var. mountain leather.—Beaver mine, township of O'Connor, district

of Thunder Bay, O. (254.)

var. mountain leather.—Lake Girard mine, lot 23, range II. of

Wakefield, Ottawa county, Q.—Presented by T. J. Watters,

1892. (5284.)

var. mountain cork.—Emerald mine, lot 19, range XII. of Bucking-

ham, Ottawa county, Q.—Coll., C. W. Willimott, 1889.

(5471.)

— (uralite).—Lot 23, range XIII. of Templeton, Ottawa county, Q.—

Presented by J. G. Miller, 1882. (4527.)

**Beryl.**—Brassard, Berthier county, Q.—Presented by D. Aikman, 1886. (1314.)

— North shore of Lake Kenogami, Chicoutimi county, Q.—Coll., F.

D. Adams, 1884. (4945.)

— De Maisonneuve, Berthier county, Q.—Coll., N. J. Giroux, 1892.

(5510.)

Table-case  
58.

C.—Orthosilicates.

**Sodalite.**—Mount Royal (Reservoir extension), Montreal, Hochelaga county, Q.—Presented by B. J. Harrington, 1886. (1478.)

## 2. - Silicates. - Titanates. - Continued.

## C. - Orthosilicates. - Continued.

- Table-case 58. - Continued.
- Sodalite.** - Vicinity of Ice River, a tributary of the Beaver-foot River, south of Kicking Horse Pass, Rocky Mountains, B.C. - Coll., G. M. Dawson, 1884. (1476.)
- Lot 29, range XIII. of Dugannon, Hastings county, O. (1633.)
- Garnet.** Orford, Sherbrooke county, Q. (4556.)
- var. grossularite. - Lot 7, range I of Wakefield, Ottawa county, Q. - Coll., C. W. Willimott, 1884. (1451, 4353.)
- var. grossularite. - Lot 12, range I. of Litchfield, Pontiac county, Q. (1253.)
- var. essonite. - Lot 12, range I. of Wakefield, Ottawa county, Q. - Coll., C. W. Willimott, 1884. (4573.)
- var. almandite. - Chegozogh Point, west side, Yarmouth, Yarmouth county, N.S. - Presented by J. D. Huntington, 1892. (1275.)
- var. almandite. - Garnet Creek, Stikene River, B.C. - Coll., A. R. C. Selwyn. (1452.)
- var. almandite, in micaceous schist. - Garnet Creek, Stikene River, B.C. - Coll., A. R. C. Selwyn. (2813.)
- North-east side of Bay St. Paul, Charlevoix county, Q. - Coll., S. Barlow, 1857. (1446, 1449.)
- Marmor, Hastings county, O. (1450.)
- Barrie, Frontenac county, O. (1448.)
- var. spessartite. - Lot 31, range I. of Villeneuve, Ottawa county, Q. - Coll., C. W. Willimott, 1891. (1269.)
- var. spessartite, in muscovite. - Lot 31, range I. of Villeneuve, Ottawa county, Q. - Coll., C. W. Willimott, 1891. (5339.)
- var. andradite. - Cawood, Pontiac county, Q. (284.)
- var. andradite. - Vicinity of Foster's Bar, about twenty-three miles above Lytton, Fraser River, B.C. (5554.)
- var. andradite. - Malaspina mine, north-east side of Texada Island, B.C. - Coll., G. M. Dawson, 1885. (1474, 5500.)
- var. andradite. - From near the head of Barclay Sound, Vancouver Island, B.C. (5986.)
- chromiferous. - Lot 6, range XII. of Orford, Sherbrooke county, Q. - Coll., C. W. Willimott, 1882. (441.)
- chromiferous. - Lot 6, range XII. of Orford, Sherbrooke county, Q. - Coll., A. R. C. Selwyn, 1879. (1445.)
- chromiferous. - South Ham, Wolfe county, Q. - Coll., A. R. C. Selwyn. (6522.)
- Chrysolite.** - Mount Albert, Shickshock Range, Gaspé county, Q. (1434.)
- Montarville, Chambly county, Q. (1436.)
- Rongemont, Rouville county, Q. (1425.)
- Scapolite.** - Lot 20, range VII. of Lansdowne, Leeds county, O. (1473.)
- Lot 21, range XII. of Templeton, Ottawa county, Q. - Coll., C. W. Willimott, 1879. (1463, 1472.)
- Augmentation of Grenville, Argenteuil county, Q. (1467.)
- Lot 14, range XII. of Templeton, Ottawa county, Q. - Coll., B. J. Harrington, 1874. (1471.)
- Lot 31, range IX. of Low, Ottawa county, O. - Coll., C. W. Willimott, 1891. (442.)
- Calumet Portage, Pontiac county, Q. (1475.)
- Table-case 59.



## 2. Silicates. Titanates. Continued.

## C.—Orthosilicates.—Continued.

- Scapolite.**—Wakefield, Ottawa county, Q. (4560.)  
 — Lot 7, range IX. of Ross, Renfrew county, O. Coll., C. W. Willimott, 1883. (231.)  
 — Lake Clear, Sebastopol, Renfrew county, O.—Presented by J. G. Miller, 1882. (4581.)  
 — Lot 13, range VI. of Ross, Renfrew county, O.—(1470.)
- Wilsonite.**—Lot 2, range IX. of North Burgess, Lanark county, O. (1477.)  
 — Lot 10, range X. of Templeton, Ottawa county, Q. Coll., C. W. Willimott, 1882. (4576.)  
 — Lot 23, range XIII. of Templeton, Ottawa county, Q.—Coll., H. J. Harrington, 1874. (5511.)  
 — Lot 21, range XIII. of Templeton, Ottawa county, Q.—Presented by J. G. Miller, 1882. (4578.)
- Cacoclasite.**—Lot 7, range I. of Wakefield, Ottawa county, Q. Coll., C. W. Willimott, 1882. (4537.)
- Vesuvianite.**—Frye's (Caillif's) Island, Charlotte county, N.B. (1443.)  
 — Lot 17, range XII. of Templeton, Ottawa county, Q.—Coll., H. J. Harrington, 1874. (1440.)  
 — Lot 12, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (1442, 4555.)
- Zircon.**—Lot 10, range V. of Grenville, Argenteuil county, Q. (1439.)  
 — Templeton, Ottawa county, Q.—Presented by F. W. Henshaw, (1437.)  
 — Lot 31, range X. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883. (4832, 4833.)  
 — (twin crystal).—Lot 31, range X. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883. (4532.)  
 — Brudenell, Renfrew county, O.—Coll., C. W. Willimott, 1883. (4533.)
- Andalusite.**—St. Stephen, Charlotte county, N.B. (1512.)  
 — var. chiastolite.—Two miles south of Lawlors Lake, on the new road to Isaacs Harbour, Guysborough county, N.S.—Coll., E. R. Faribault, 1887. (5517.)  
 — and staurolite.—Crow's Nest mine, St. Mary's, Guysborough county, N.S.—Coll., E. R. Faribault, 1887. (5516.)
- Fibrolite.**—Lot 9, range III. of Dryden, district of Nipissing, O.—Coll., A. E. Barlow, 1890. (1326.)
- Cyanite.**—Lot 9, range III. of Dryden, district of Nipissing, O.—Coll., A. E. Barlow, 1890. (1329, 5145.)
- Epidote.**—New River Bridge, Charlotte county, N.B.—Coll., G. F. Mathew, 1876. (4553.)  
 — Clifton, parish of Kingston, King's county, N.B.—Coll., L. W. Bailey, 1870. (1458.)  
 — Shickshoek Mountains, Gaspé county, Q. (1454.)  
 — Renfrew county, O. (4557.)  
 — Mouth of river two miles south of Poplar River, Lake Nipigon, district of Thunder Bay, O.—Coll., P. McKellar, 1869. (1455.)  
 — North shore of Upper Lake Abitibi, O.—Coll., W. McQuat, 1872. (1456.)  
 — Second point north of Richmond Gulf, Hudson Bay.—Coll., R. Bell, 1877. (1730.)

Table-case  
59.  
Continued.

## 2.—Silicates.—Titanates—Continued.

## C.—Orthosilicates.—Continued.

- Table-case 59—  
Continued.  
Table-case 60.
- Epidote.**—South shore of Johnstone Strait, opposite Forward Bay, Vancouver Island, B.C.—Coll., D. B. Dowling, 1885. (6510.)  
— Harrison Lake, B.C.—Coll., A. Bowman, 1884. (6509.)  
**Axinite.**—One mile and a half south of Little Whale River, east coast of Hudson Bay.—Coll., R. Bell, 1877. (1457.)  
**Prehnite.**—Lake Superior, O.—Coll., W. E. Logan, 1846. (1519-1521.)  
— Michipicoten Island, Lake Superior, O. (1522.)

## D.—Subsilicates.

- Chondrodite.**—South Crosby, Leeds county, O. (1501.)  
**Ivaite.**—Vicinity of Ottawa, Carleton county, O. (1453.)  
— From near the head of Burelay Sound, Vancouver Island, B.C. (1301.)  
**Tourmaline.**—McGregor's quarry, Lachute, Argenteuil county, Q. (1505.)  
— Lot 10, range XI. of Chatham, Argenteuil county, Q. (1405.)  
— Templeton, Ottawa county, Q. (1901.)  
— Grand Falls, Calumet Island, Pontiac county, Q. (1506.)  
— Near Hunterstown, Maskinongé county, Q. (1735.)  
— Lot 17 or 18, range XIV. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1891. (1502, 1503.)  
— Lot 26, range VII. of Wakefield, Ottawa county, Q.—Presented by L. H. Shirley, 1886. (1509.)  
— Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1888 (5695, 5697 to 5702.)  
— Lot 31, range I. of Villeneuve, Ottawa county, Q.—Coll., C. W. Willimott, 1887. (5514, 5515.)  
— Bathurst, Lanark county, O. (1507.)  
— Lot 27, range III. of Ross, Renfrew county, O.—Coll., C. W. Willimott, 1883. (1324.)  
— Lot 27, range III. of Ross, Renfrew county, O.—Coll., J. Richardson, 1853. (1508.)  
— Pakenham, Lanark county, O. (1504.)  
— Fitzroy, Carleton county, O. (1510.)  
— Madoc, Hastings county, O. (1511.)  
**Staurolite.**—Moore's Mills, Charlotte county, N.B.—Coll., L. W. Bailey, 1870. (1516.)  
— Carleton, Shelburne county, N.S.—Coll., L. W. Bailey, 1890. (222.)  
— One hundred yards south of Crow's Nest mine, St. Mary's, Guys borough county, N.S.—Coll., E. R. Faribault, 1886. (5393.)

## B.—HYDROUS SILICATES.

## A.—Zeolite division.

- Apophyllite.**—Sheffield Vault, King's county, N.S.—Coll., C. W. Willimott, 1883. (4594.)  
— Cape Blomidon, King's county, N.S.—Coll., C. W. Willimott, 1883. (4565.)  
— with stilbite.—Blomidon, King's county, N.S.—Coll., C. W. Willimott, 1883. (4587.)  
— with heulandite.—Blomidon, King's county, N.S.—Coll., C. W. Willimott, 1883. (4588.)  
— Spar Island, Lake Superior, district of Thunder Bay, O. (1528.)

## 2.—Silicates.—Titanates.—Continued.

## A.—Zeolite division.—Continued.

- site Forward Bay, Vancouver  
 ling, 1885. (6510.)  
 man, 1884. (6509.)  
 hale River, east coast of Hud-  
 (1457.)  
 n, 1846. (1519-1521.)  
 ). (1522.)  
 (1501.)  
 (1453.)  
 and, Vancouver Island, B.C.  
 ntenil county, Q. (1505.)  
 tenil county, Q. (1405.)  
 )  
 county, Q. (1506.)  
 ty, Q. (1735.)  
 awa county, Q.—Coll., C. W.  
 awa county, Q.—Presented by  
 ll., C. W. Willimott, 1888  
 awa county, Q.—Coll., C. W.  
 county, O.—Coll., C. W. Willi-  
 county, O.—Coll., J. Richard-  
 )  
 B.—Coll., L. W. Bailey, 1870.  
 ll., L. W. Bailey, 1890. (222.)  
 Nest mine, St. Mary's, Guys-  
 R. Faribault, 1886. (5393.)  
 S.—Coll., C. W. Willimott,  
 Coll., C. W. Willimott, 1883.  
 ty, N.S.—Coll., C. W. Willi-  
 county, N.S.—Coll., C. W.  
 f Thunder Bay, O. (1528.)
- Steeelite.**—Cape Split, King's county, N.S.—Coll., C. W. Willimott, 1883. (4592.) Table-case 61.  
**Heulandite.**—Blomidon, King's county, N.S.—Coll., C. W. Willimott, 1883. (1555, 1556.)  
 — Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5692.)  
 — West side of Horseshoe Cove, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5647.)  
 — Dalhousie, Restigouche county, N.B.—Coll., R. W. Ells, 1881. (1557.)  
**Harmotome.**—Beaver mine, township of O'Connor, district of Thunder Bay, O.—Coll., A. C. Lawson. (1497.)  
**Stilbite.**—Cape d'Or, Cumberland county, N.S.—Coll., R. W. Ells, 1870. (1546, 1548, 1549.)  
 — Blomidon, King's county, N.S.—Coll., C. W. Willimott, 1883. (1544, 1547, 4595.)  
 — Partridge Island, Cumberland county, N.S.—Coll., C. W. Willimott, 1883. (5520.)  
 — with calcite.—Partridge Island, Cumberland county, N.S.—Coll., R. W. Ells, 1876. (1542.)  
 — with analcite.—Partridge Island, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5689.)  
 — Port George, Annapolis county, N.S.—Coll., C. W. Willimott, 1883. (4601.)  
 — Victoria Harbour, King's county, N.S., Coll., C. W. Willimott, 1883. (1543, 1561.)  
 — Victoria Harbour, King's county, N.S., Coll., C. W. Willimott, 1883. (4586, 4589, 4600.)  
 — Black Rock, King's county, N.S.—Coll., C. W. Willimott, 1883. (1545.)  
 — Sheffield Vault, King's county, N.S.—Coll., C. W. Willimott, 1883. (4599.)  
 — West side of Horseshoe Cove, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5648.)  
 — West side of Fog Whistle, Cape d'Or, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5651.)  
 — Bennet's Brook, east of Horseshoe Cove, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5652.)  
 — Hall's Harbour, King's county, N.S.—Coll., C. W. Willimott, 1883. (1551.)  
 — Salmon River, nine miles above Grand Prairie, B.C.—Coll., G. M. Dawson, 1877. (1541.)  
 — Digby Neck, Digby county, N.S.—Coll., L. W. Bailey, 1892. (1527, 1530.)  
**Laumontite.**—West side of Fog Whistle, Cape d'Or, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5713.)  
 — Black Rock, King's county, N.S.—Coll., C. W. Willimott, 1883. (5519.)  
 — Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1892. (237.)  
**Chabazite.**—Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5656, 5657, 5690.)  
 — Between Cape Spencer and Cape d'Or, Cumberland county, N.S.—Coll., S. Barlow, 1878. (1539.)

2.—*Silicates*.—*Titanates*.—*Continued*.A.—*Zoolite division*.—*Continued*.

- Table-case 62. **Chabazite**.—Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1892. (4593.)
- with heulandite.—Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5655.)
- West side of Fog Whistle, Cape d'Or, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5653, 5654.)
- West of Swan Creek, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5650.)
- Swan Creek, Cumberland County, N.S.—Coll., C. W. Willimott, 1883. (4564.)
- Five Islands, Colchester county, N.S.—Coll., C. W. Willimott, 1892. (4596.)
- with stilbite.—Bennet's Brook, east of Horseshoe Cove, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5686.)
- Salmon River, nine miles above Grand Prairie, B.C.—Coll., G. M. Dawson, 1877. (1538.)
- Gmelinite**.—Big Island, Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5649.)
- Analcite**.—Blomidon, King's county, N.S.—Coll., R. W. Ells, 1876. (1534.)
- West of Horseshoe Cove, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5667.)
- Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5668.)
- Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1883. (1533, 1535, 1536.)
- Natrolite**.—Cape Split, King's county, N.S.—Coll., R. W. Ells, 1876. (1531, 1532.)
- East of Stronach Brook, King's county, N.S.—Coll., C. W. Willimott, 1883. (1526.)
- Stronach Mountain, King's county, N.S.—Coll., C. W. Willimott, 1883. (4566.)
- Port George, Annapolis county, N.S.—Coll., C. W. Willimott, 1883. (4567.)
- Bennet's Brook, east of Horseshoe Cove, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5685.)
- Cape d'Or, Cumberland county, N.S. (1523.)
- Five Islands, Colchester county, N.S.—Coll., C. W. Willimott, 1892. (1734, 4526.)
- Montreal, Hochelaga county, Q.—Coll., B. J. Harrington. (1525.)
- Scolecite**.—Black Lake, Coleraine, Megantic county, Q.—Presented by J. T. Donald, 1890. (2104.)
- Thompsonite**, with amleite.—Hall's Harbour, King's county, N.S.—Coll., C. W. Willimott, 1883. (1524.)

B.—*Mica division*.

- Muscovite**.—Villeneuve mica mine, lot 31, range I. of Villeneuve, Ottawa county, Q.—Coll., C. W. Willimott, 1891. (5504.)
- rose-coloured.—Villeneuve mica mine, lot 31, range I. of Villeneuve, Ottawa county, Q.—Coll., C. W. Willimott, 1890. (5503.)
- in which are embedded, distorted and more or less flattened, (in the direction of the cleavage planes of the mica) crystals of spessartite.—Villeneuve mica mine, lot 31, range I. of Villeneuve, Ottawa county, Q.—Presented by W. A. Allan, 1887. (5444.)

Continued.

## 2.—Silicates.—Titanates—Continued.

## B.—Mica division.—Continued.

- Muscovite.**—Mattawa, district of Nipissing, O. (5506.)  
 — Lot 8, range VII. of Masram, Ottawa county, Q.—Coll., C. W. Willimott, 1891. (1411.)  
 — with lenticular shaped (in the direction of the cleavage planes of the mica) inclusions of white sub-transparent quartz.—Yeo's Island, Upper St. Maurice River, Portneuf county, Q. (5505.)  
 — Lot 4, range XI. of Miller, Frontenac county, O.—Presented by E. G. Powell. (5377.)  
 — chromiferous.—Lot 12, range VIII. of Sutton, Bromé county, Q.—Coll., T. S. Hunt. (1695.)  
 — chromiferous.—Matawachan, Renfrew county, O. (1424.)
- Dyssyntribite.**—Arisaig, Antigonish county, N.S. (1601.)
- Parophite.**—St. Nicholas, Lévis county, Q. (1602.)
- Wilsonite.**—Lot 2, range IX. of North Burgess, Lanark county, O. (240.)
- Cookeite.**—Wuit-a-bit Creek, Columbia River, about two miles north of Donald, B.C.—Coll., J. J. Driscoll. (1417.)
- Biotite.**—Lot 13, range VI. of Ross, Renfrew county, O.—Coll., C. W. Willimott, 1883. (1459.)  
 — Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1891. (4572.)  
 — hydrous.—North-east Harbour, Shelburne county, N.S.—Coll., L. W. Bailey, 1891. (1550.)
- Phlogopite.**—Lot 2, range X. of Grenville, Argenteuil county, Q.—Coll., W. E. Logan, 1853. (1464.)  
 — a section of a crystal, in which there occurs a small prism of the same mineral, the vertical axis of which is parallel to the cleavage planes of the enclosing mica.—Lot 15, range VIII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878. (1460.)  
 — North half of lot 10, range V. of Hull, Ottawa county, Q.—Presented by E. B. Haycock, 1892. (1461.)  
 — in which is embedded, parallel to the cleavage planes of the mica, some highly distorted octahedra of pyrite.—Lot 10, range XII. of Hull, Ottawa county, Q.—Presented by T. F. Nellis, 1892. (1422.)  
 — in which is embedded, parallel to the cleavage planes of the mica, a sharply defined hexagonal plate of molybdenite.—Lot 10, range XII. of Hull, Ottawa county, Q.—Presented by T. F. Nellis, 1892. (1587.)  
 — a plate of, upon the face of which, and almost but not quite covering the same, there occurs a thin layer of pale apple-green, fine fibrous, radiated (arborescent-like) actinolite.—Lot 10, range XII. of Hull, Ottawa county, Q.—Presented by A. Trowse, 1892. (6521.)  
 — with inclusions of purple fluorite and pyroxene.—South half of lot 9, range XV. of Hull, Ottawa county, Q. (4571.)  
 — with inclusions of light blue crystalline calcite.—Lot 7, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1884. (4936.)  
 — Lot 7, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (4841.)  
 — Lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883. (1468, 4840.)

Table-case  
63.

2.—*Silicates, Titanates*—Continued.*B.—Mica division.*—Continued.

- Table-case 64. **Phlogopite.**—Calumet Island, Pontiac county, Q.—Coll., C. W. Willimott, 1879. (1466.)
- twin crystals.—Lot 7, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1884. (1960.)
- North Burgess, Lanark county, O.—Coll., H. G. Vemor. (1463.)
- in which is embedded, parallel to the cleavage planes of the mica, a prism of apatite.—Lot 4, range VIII. of North Burgess, Lanark county, O. (1612.)
- Otty Lake, North Burgess, Lanark county, O. (4570.)
- Lepidomelane.**—Lot 14, range X. of Marmora, Hastings county, O. (6544.)
- Chloritoid.**—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Coll., C. W. Willimott, 1882. (1603.)
- Sutton, Brome county, Q. (1604.)
- Ripidolite?**—Lot 24, range XII. of Buckingham, Ottawa county, Q.—Coll., J. F. Torrance, 1883. (5583.)
- Chlorite.**—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q. (1623.)
- Sutton, Brome county, Q. (1598.)
- Lot 4, range V. of Brome, Brome county, Q.—Coll., J. Richardson. (1599.)
- West Bay, Lake Nipissing, O.—Presented by P. H. Colton. (5513.)
- Delessite?**—Petite Passage, Digby Neck, Digby county, N.S.—Coll., H. How, 1868. (1600.)

*C.—Serpentine and talc division.*

- Serpentine.**—Pisarinco Cove, St. John county, N.B.—Coll., T. S. Hunt, 1869. (1590, 1591.)
- Mount Albert, Shickshock Range, Gaspé county, Q.—Coll., J. Richardson, 1858. (1589.)
- North-east corner of lot 10, range XVIII. of Orford, Sherbrooke county, Q.—Coll., J. Richardson. (18, 1584.)
- Lot 10, range IX. of Bolton, Brome county, Q.—Coll., C. W. Willimott, 1882. (4602.)
- pseudomorph after actinolite.—Big Island, Lake Nicolet, South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882. (1570.)
- Lake Nicolet, South Ham, Wolfe county, Q. (1593.)
- var. porcellophite.—Fenwick and Selater's asbestos mine, Coleraine, Megantic county, Q.—Coll., R. W. Ellis, 1889. (19.)
- Lot 16, range III. of Grenville, Argenteuil county, Q. (1586, 1588.)
- East end of lot 28, range VIII. of Stukely, Shefford county, Q.—Coll., J. Richardson. (1571.)
- Shipton, Richmond county, Q.—Coll., J. Richardson. (1574.)
- Grand Falls, Calumet Island, Pontiac county, Q.—Coll., C. W. Willimott, 1879. (1575, 1577, 1578.)
- Calumet Portage, Calumet Island, Pontiac county, Q.—Coll., C. W. Willimott, 1879. (1580, 1581, 1582.)
- Thirty Island Lake, lot 6, range III. of Bedford, Frontenac county, O.—Coll., C. W. Willimott. (4603.)
- Station R, Pelly River, a branch of the Yukon River, N.W.T.—Coll., G. M. Dawson, 1877. (6549.)
- North-east side of Texada Island, three miles from north-west end, B.C.—Coll., J. Richardson, 1873. (1594.)

Continued.

Q.—Coll., C. W. Willimott.

Keefe field, Ottawa county, Q.—  
(1960.)Coll., H. G. Vennor. (1463.)  
cleavage planes of the mica, a  
range VIII. of North Burgess.

county, O. (4570.)

astings county, O. (6544.)  
of Leeds, Megantic county,  
82. (1603.)

Ottawa county, Q.—Coll., J.

Leeds, Megantic county, Q.

ty, Q.—Coll., J. Richardson.

nted by P. H. Colton. (5513.)  
county, N.S.—Coll., H. How.

B.—Coll., T. S. Hunt, 1869.

Gaspé county, Q.—Coll., J.

VIII. of Orford, Sherbrooke  
n. (18, 1584.)

county, Q.—Coll., C. W.

Island, Lake Nicolet, South  
ll., C. W. Willimott, 1882.

ty, Q. (1593.)

er's asbestos mine, Coleraine.  
W. Ellis, 1889. (19.)

enil county, Q. (1586, 1588.)

akely, Shefford county, Q.—

J. Richardson. (1574.)

county, Q.—Coll., C. W.  
(578.)tiac county, Q.—Coll., C. W.  
(582.)Bedford, Frontenac county.  
(603.)

he Yukon River, N.W.T.—

e miles from north-west end.  
t. (1594.)

## 2.—Silicates.—Titanates—Continued.

## C.—Serpentine and talc division.

**Serpentine.**—var. chrysotile.—Johnson's mine, Thetford, Megantic county, Q. — Table-case  
Coll., C. W. Willimott, 1882. (1566.) 64.—— var. chrysotile.—Shipton, Richmond county, Q.—Coll., J. Richard-  
son. (1569.) Continued.— var. chrysotile.—Broughton, Beauce county, Q.—Presented by Dr.  
Reed, 1883. (4568.)— var. chrysotile.—Lot 14, range VII. of Broughton, Beauce county,  
Q.—Presented by Dr. Reed, 1882. (163, 4569.) Table-case  
65.— var. chrysotile.—Lot 2, range VII. of Potton, Brome county, Q.—  
Coll., J. Richardson. (4591.)— var. chrysotile.—Lot 17, range V. of Potton, Brome county, Q.—  
Coll., A. R. C. Selwyn, 1879. (1727.)— var. chrysotile.—Near Lake Nicolet, South Ham, Wolfe county, Q.  
—Coll., A. R. C. Selwyn, 1879. (1728.)— var. chrysotile.—Lot 11, range VII. of Templeton, Ottawa county,  
Q.—Coll., B. J. Harrington, 1878. (1567.)— var. pierolite.—Big Island, Lake Nicolet, South Ham, Wolfe county,  
Q.—Coll., C. W. Willimott, 1882. (1729.)

— var. pierolite.—Orford, Sherbrooke county, Q. (1572.)

— var. pierolite.—Memphremagog mine, Bolton, Brome county, Q.—  
Coll., C. W. Willimott, 1892. (4608.)— var. pierolite.—Lot 18, range VI. of Duhamel, Pontiac county, Q.—  
Coll., N. J. Giroux, 1890. (1837.)

— var. marmolite.—Orford, Sherbrooke county, Q. (1573.)

**Aphrodite.**—Grenville, Argenteuil county, Q. (1564.)**Talc.**—Lot 17, range V. of Potton, Brome county, Q. (1558.)

— Elizabethtown, Leeds county, O. (1560.)

— Lot 24, range II. of Clarendon, Frontenac county, O. (1583.)

**Steatite.**—Potton, Brome county, Q. (1562.)

— Brome, Brome county, Q. (1563.)

**Rensselaerite.**—Charleston Lake, Leeds county, O. (1559.)**Pyralolite.**—Lot 8, range VI. of Ramsay, Lanark county, O.—Coll., C. W.  
Willimott, 1887. (5492.)**Saponite.**—St. George or Hog Island, Richmond Bay, north coast of Prince  
Edward Island. 1595.**Glauconite.**—Island of Orleans, River St. Lawrence, Q. (1565.)

## D.—Kaolin division.

**Kaolinite.**—Wentworth, Hants county, N.S.—Presented by S. H. Sweet, 1875.  
(1597.)

— Grande Ferrière, county of Two Mountains, Q. (1592.)

— Lot 25, range V. of Acton, Bagot county, Q.—Presented by John  
Stewart. (213.)**Pholerite.**—From just below the Chaudière Falls, Lewis county, Q.—Coll., T. S.  
Hunt, 1854. (1596.)

## E.—Concluding division.

**Hisingerite.**—Lot 19, range II. of Elizabethtown, Leeds county, O. (6545.)  
Rep. Geol. Can., 1874-75, page 315.

## 2. Silicates.—Titanates—Continued.

## C.—TITANO-SILICATES, [TITANATES].

Table-case 65.— Continued.	<b>Titanite.</b> —Brome, Brome county, Q. (1515.)
—	Lot 10, range V. of Grenville, Argenteuil county, Q.—Coll., C. W. Willimott. (1514.)
—	Lot 8, range XIV. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (1513.)
—	Lot 7, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (214.)
—	South Sherbrooke, Lanark county, O.—Presented by W. J. Morris. 1882. (4585.)
—	Island D, Lake Clear, Sebastopol, Renfrew county, O.—Presented by J. G. Miller, 1882. (4562, 4563, 5518.)
—	Island D, Lake Clear, Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883. (4831.)
—	Lot 31, range X. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883. (4536.)

## 3.—Niobates, tantulates.

**Samarskite.**—Lots 1 and 2, range II. of Maisonneuve, Berthier county, Q.—Presented by D. Aikman and W. F. Ferrier. (4943.)

## 4.—Phosphates, [arsenates, vanadates, antimonates]—nitrates.

Table-case 66.	<b>Monazite.</b> —Lot 31, range I. of Villeneuve, Ottawa county, Q. (5521.)
—	<b>Apatite.</b> —Lot 10, range XI. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (244.)
—	Lot 11, range XI. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (1607.)
—	in calcite.—Turner's Island, Lake Clear, Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883. (1717, 4830.)
—	Lot 9, range X. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (1393.)
—	with inclusions of calcite.—Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878. (1608.)
—	Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878. (1606, 1617.)
—	Lot 9, range XIV. of Hull, Ottawa county, Q.—Coll., C. W. Willimott. (1611.)
—	Lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (4851.)
—	in calcite.—Grand Falls, Calumet Island, Pontiac county, Q. (1616, 1619.)
—	Ross, Renfrew county, O. (1618.)
—	in calcite.—Lot 10, range VI. of North Burgess, Lanark county, O. Coll., H. G. Vennor. (1614.)
—	North Burgess, Lanark county, O.—Coll., H. G. Vennor. (1615.)
—	Bedford, Frontenac county, O.—Presented by W. J. Morris. (1579.)
—	Island D, Lake Clear, Sebastopol, Renfrew county, O.—Presented by J. G. Miller, 1882. (1720.)



Continued.

## 4.—Phosphates, etc.—Continued.

- Apatite**.—Turner's Island, Lake Clear, Sebastopol, Renfrew county, O.—Presented by J. G. Miller, 1882. (4606.) Table-case 6th.—Continued.
- Lot 31, range X. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883. (4610, 4829.)
- Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883. (1718, 1719, 4528, 4835.)
- Lazulite**.—Lake Mistassini region, Q.—Coll., J. Richardson, 1870. (5989.)
- Vivianite**.—Côte St. Charles, Vaudreuil, Vaudreuil county, Q. (1613.)
- The "Ranparts," Porcupine River, Yukon district, N.W.T.—Presented by — Firth, 1891. (5987.)
- Nitre**.—Big Bar, Fraser River, B.C.—Presented by A. Cowan, 1884. (4942.)

## 5.—Borates, uranates.

- Howlite**.—Newport quarry, Newport, Hants county, N.S.—Coll., H. P. Brumell, 1892. (517.)
- in gypsum.—Windsor, Hants county, N.S.—Coll., H. How, 1868. (1620.)
- Ulexite**.—Newport, Hants county, N.S.—Coll., H. How, 1868. (1621.)
- Uraninite**, with gummite.—Lot 31, range I. of Villeneuve, Ottawa county, Q. (5493.) Table-case 67.

## Antimonates]—nitrates.

## 6.—Sulphates, [chromates, tellurates.]

- Barite**.—Mabou Mines, Inverness county, N.S. (1627.)
- Lot —, range IV. of Ramsay, Lanark county, O.—Presented by W. H. Wylie, 1884. (4615.)
- Five Islands, Colchester county, N.S.—Coll., S. Barlow, 1875. (1622.)
- Lot 7, range X. of Hull, Ottawa county, Q. (1629.)
- Lot 4, range VI. of North Burgess, Lanark county, O.—Coll., C. W. Willimott, 1882. (1286.)
- Iron Island, Lake Nipissing, O. (1625.)
- Dog Lake, Storrington, Frontenac county, O. (1626.)
- McKellar's Island, Lake Superior, district of Thunder Bay, O.—Coll., E. D. Ingall, 1886. (5359.)
- (the Michel Lévyte of A. Lacroix).—Near Perkins' Mill, lot 12, range XII. of Templeton, Ottawa county, Q. (5992.)
- Celestite**.—Lot 8, range I. of Lansdowne, Leeds county, O. (1630.)
- Kingston, Frontenac county, O. (1631.)
- Lot 7, range X. of Bagot, Renfrew county, O.—Presented by Hiram Robinson, 1885. (1769.)
- in dolomite.—Forks of the Credit, Caledon, Peel county, O.—Presented by Prof. E. J. Chapman. (1716.)
- Loc. (?) (1634.)
- Anhydrite**.—Hillsborough, Albert county, N.B.—Coll., C. W. Willimott. (1624, 1635.)
- Wentworth, Hants county, N.S.—Coll., C. W. Willimott, 1883. (4616.)
- Gypsum**.—North Shore, St. Ann's Bay, Cape Breton county, N.S.—Coll., H. Fletcher. (1641.)

## 6.—Sulphates, etc.—Continued.

- Table-case  
67.—  
Continued
- Gypsum.**—Hillsborough, Albert county, N.B.—Coll., C. W. Willimott, 1883 (1642.)  
— Mount Healy, Haldimand county, O.—Coll., T. C. Weston, 1875. (1714.)  
— fibrous.—Springhill, Cumberland county, N.S.—Coll., S. Barlow, 1875. (1643.)  
— fibrous.—Blomidon, King's county, N.S.—Coll., R. W. Ells, 1876. (1644.)  
— fibrous.—Paris, Brant county, O.—Presented by Wm. Coleman, 1875. (1645.)  
— stellar.—Windsor, Hunts county, N.S. (1640.)  
— var. selenite.—Springhill, Cumberland county, N.S.—Coll., S. Barlow, 1875. (1636.)  
— var. selenite.—Niagara Falls, Welland county, O.—Coll., R. Bell, 1859. (1638.)  
— var. selenite.—Oxford, River Philip, Cumberland county, N.S. (1639.)  
— var. selenite.—Near Lake St. Martin, township 32, range VIII, west of the principal meridian, Manitoba.—Coll., J. B. Tyrrell, 1888. (5537.)  
— var. selenite.—South Saskatchewan River, at mouth of Swift Current Creek, district of Assiniboia, N.W.T.—Coll., T. C. Weston. (1637.)  
— var. selenite.—Four miles north of Irvine, district of Assiniboia, N.W.T.—Coll., T. C. Weston, 1888. (6520.)  
— var. selenite.—Pembina Mountain, Manitoba.—Coll., G. M. Dawson, 1873. (1656.)  
— var. selenite.—Pyramid Valley, district of Assiniboia, N.W.T.—Coll., G. M. Dawson, 1873. (1715.)
- Epsomite.**—Ancaster, Brant county, O. (1646.)
- Morenosite.**—Wallace mine, about one mile west of the mouth of Whitefish River, district of Algoma, O. (1647.)
- Melanterite.**—Four miles west of Sudbry junction, C.P.R., district of Algoma, O.—Coll., H. P. Brunell, 1884. (4836.)
- Halotrichite.**—Gowrie Mines, Cape Breton county, N.S. (1648.)  
— with melanterite.—Gowrie Mines, Cape Breton county, N.S. (1649.)
- Alunogen.**—Scotia mine, Maccan, Cumberland county, N.S.—Coll., S. Barlow, 1876. (1650.)  
— Mouth of Fountain Creek, Fraser River, B.C.—Coll., G. M. Dawson, 1889. (1852.)  
— From the vicinity of Spatsum, C.P.R., B.C. (1433.)
- Uraconite** on magnetite.—Seymour ore bed, lot 11, range V, of Madoc, Hastings county, O. (1651.)

## 7.—Tungstates, [molybdates].

- Scheelite.**—Lot 1, range VII, of Marlow, Beauce county, Q.—Coll., A. Webster, 1881. (5983.)  
— Lot 1, range VII, of Marlow, Beauce county, Q.—Coll., W. F. Ferrier, 1891. (1462.)

The  
table-c  
system

Coll., C. W. Willimott, 1883.  
 —Coll., T. C. Weston, 1875.  
 —Coll., N.S.—Coll., S. Barlow.  
 —Coll., R. W. Ells, 1876.  
 Presented by Wm. Coleman.  
 (1640.)  
 —Coll., S.  
 —Coll., R. Bell.  
 —Coll., Cumberland county, N.S.  
 —Coll., township 32, range VIII.  
 —Coll., J. B.  
 —Coll., at mouth of Swift Current  
 River, N.W.T.—Coll., T. C.  
 —Coll., district of Assiniboia,  
 1888. (6520.)  
 —Coll., G. M. Dawson.  
 —Coll., district of Assiniboia, N.W.T.—  
 (715.)  
 —Coll., at the mouth of Whitefish  
 River, N.W.T.—Coll., C. P. R., district of  
 Assiniboia, 1884. (4836.)  
 —Coll., N.S. (1648.)  
 —Coll., Breton county, N.S. (1649.)  
 —Coll., N.S.—Coll., S. Barlow.  
 —Coll., B.C.—Coll., G. M. Dawson.  
 —Coll., B.C. (1433.)  
 —Coll., range V. of Madoc, Hast-  
 ings county, Q.—Coll., A.  
 —Coll., county, Q.—Coll., W. F.

### VIII.—HYDROCARBON COMPOUNDS.

- Mineral resin.**—Near Shaw's mill, north side of Gaspé Basin, Gaspé county, Q. (1701.)  
 — From a coal seam on the Middle Fork of the Old Man River, Rocky Mountains, district of Alberta, N.W.T.—Presented by L. O. Garnett, 1885. (5139.)  
 — Hat Creek, near Marble Cañon, B.C.—Coll., G. M. Dawson, 1877. (1689.)  
 — (Chemawinite).—West side of Cedar Lake, district of Saskatchewan, N.W.T.—Presented by W. Clark, 1890. (5382.)  
 — (Chemawinite).—Cedar Lake, district of Saskatchewan, N.W.T.—Coll., J. B. Tyrrell, 1890. (6501.)  
**Altered petroleum.**—From the "gum beds," Emmiskillen, Lambton county, O. (5541.)  
**Maltha or mineral tar.**—Athabasca River, twelve miles below its confluence with the Little Red River, N.W.T.—Coll., A. S. Cochrane, 1881. (5542.)  
**Bitumen.**—Barton, Wentworth county, O.—Coll., Col. C. C. Grant. (1704.)  
**Bituminous Sand-rock.**—Athabasca River, about six miles south of Beaver Lake, N.W.T.—Coll., A. S. Cochrane, 1881. (1713.)  
**Anthraxolite.**—Island of Orleans, River St. Lawrence, Q. (1702.)  
 — Black River, St. Giles, Lotbinière county, Q. (1703.)  
 — Region of Lake Mistassini, Q.—Coll., J. A. Leitch, 1871. (5982.)  
**Albertite.**—Albert Mines, Albert county, N.B.—Coll., R. W. Ells, 1876. (1706, 1903.)  
**Mineral charcoal on lignite.**—North bank of the South Saskatchewan River, seven miles west of Medicine Hat, district of Assiniboia, N.W.T. (5546.)  
**Lignite.**—Coal River, below Long Portage, Missinibi River, O.—Coll., R. Bell, 1877. (1711.)  
 — Souris River—one mile west of La Roche Percée, at the junction of Short Creek and Souris River—district of Assiniboia, N.W.T.—Coll., A. R. C. Selwyn, 1878. (1709.)  
**Lignitic coal.**—Belly River—from main seam at "Coal Banks,"—district of Alberta, N.W.T.—Coll., T. C. Weston, 1883. (1721.)  
**Coal.**—Sydney, Cape Breton county, N.S. (1710.)  
 — Mill Creek—four miles above the mill—Old Man River, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1881. (1722.)  
**Canal coal.**—Cape Morien (South Head), Cape Breton county, N.S.—Coll., C. Robb, 1872. (6530.)  
**Semi-anthracite.**—Cascade River, Bow River Pass, Rocky Mountains, district of Alberta, N.W.T.—Coll., A. R. C. Selwyn, 1883. (1712.)  
**Anthracite.**—Cowgitz, Skidegate Inlet, Queen Charlotte Islands, B.C.—Coll., J. Richardson, 1872. (1605.)

Table-case  
68.

The following are shown in upright table-cases 37-44 and separate table-cases A, B, C, D, E and F. They are supplemental to the systematic collection proper, but not in the sense of illustrating any

species not already shown in that collection. They consist for the most part of large specimens some of which show the mineral to greater advantage than the smaller specimens in the flat table-cases, whilst others consist of groups of crystals or masses of interesting mineral associations.

#### Native Elements.

Upright  
table-case  
37.

**Graphite.**—Lot 3, range H. of Grenville, Argenteuil county, Q.—Coll., R. Bell, 1856. (588.)

#### Sulphides.

**Cinnabar.**—"Rosebush" claim, near the mouth of Copper Creek, Kamloops Lake, B.C.—Coll., E. D. Ingall, 1892. (5530.)

**Millerite,** in calcite.—Orford nickel mine, lot 6, range XII. of Orford, Sherbrooke county, Q.—Coll., C. W. Willimott, 1882. (5528.)

**Pyrite.**—Emerald mine, lot 19, range XII. of Buckingham, Ottawa county, Q.—Coll., C. W. Willimott, 1891. (336.)

#### Oxides.

**Quartz,** amethystine.—Amethyst Harbour, Thunder Bay, Lake Superior, O.—Coll., R. Bell, 1875. (4543, 5524.)

— with calcite.—Lake Superior, O. (2520.)

**Cacholong,** with agate.—Cape Blomidon, King's county, N.S.—Coll., C. W. Willimott, 1883. (4548.)

**Jasper.**—Mamainse (Namainse), Lake Superior, district of Algoma, O. (4653.)

**Limonite.**—Martin's Brook, Acadia Mines, Londonderry, Colchester county, N.S.—Coll., C. W. Willimott, 1883. (4544.)

— var. bog iron ore.—Memphremagog mine, Bolton, Brome county, Q.—Coll., C. W. Willimott, 1892. (4611.)

#### Carbonates.

Upright  
table-case  
38.

**Calcite.**—Lot 7, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1884. (4655.)

— var. Iceland spar, in mountain cork.—Emerald mine, lot 19, range XII. of Buckingham, Ottawa county, Q. (2560.)

— Montreal, Hochelaga county, Q.—Coll., B. J. Harrington. (4618.)

— var. nail-head spar.—Montreal, Hochelaga county, Q.—Coll., C. W. Willimott, 1878. (4617.)

— var. nail-head spar.—Montreal, Hochelaga county, Q.—Coll., B. J. Harrington. (5536.)

— var. nail-head spar.—Teny Cape, Hants county, N.S.—Coll., C. W. Willimott, 1883. (4623.)

— var. dog-tooth spar.—Five Islands, Colchester county, N.S.—Coll., S. Barlow, 1875. (2527.)

— var. Iceland spar.—Galway, Peterborough county, O. (2536.)

**Dawsonite** on felspathic trap.—Near the western end of McGill College, Montreal, Hochelaga county, Q.—Coll., B. J. Harrington, 1878. (2549.)

## Silicates, anhydrous.

- Orthoclase.**—Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1884. (911, 4826.) Upright table-case 39.
- with pyroxene.—Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1891. (553.)
- with pyroxene and apatite.—Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1884. (4828.)
- Amazon stone.**—South half of lot 6, range XII. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1883. (5464.)
- Lot 31, range X. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1884. (4834.)
- Albite**, with tourmaline, muscovite, quartz and spessartite.—Villeneuve mica mine, lot 31, range I. of Villeneuve, Ottawa county, Q.—Coll., C. W. Willimott, 1887. (5465.)
- Oligoclase.**—Lot 8, range III. of Dryden, district of Nipissing, O.—Coll., A. E. Barlow, 1891. (5338.)
- Pyroxene**, var. diopside.—Orford nickel mine, lot 6, range XII. of Orford, Sherbrooke county, Q.—Coll., A. R. C. Selwyn, 1879. (5531.)
- Lot 18, range II. of Wakefield, Ottawa county, Q.—Presented by Isaac Moore, 1883. (5034.)
- with phlogopite.—Lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882. (4552.)
- Lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883. (4551.)
- twin crystal.—Lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1890. (616.)
- in calcite.—Portland, Ottawa county, Q. (2548.)
- with apatite.—Lot 7, range IX. of Ross, Renfrew county, O.—Coll., C. W. Willimott, 1883. (3711.)
- var. diopside.—Calumet Island, Pontiac county, Q. (2513.)
- var. diopside.—Ragged Chute, Madawaska River, Blythfield, Renfrew county, O.—Coll., A. Murray, 1859. (4661.)
- with orthoclase and apatite.—Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1884. (4860.)
- var. diopside.—Grosse Roche, Chaudière River, Beauce county, Q.—Coll., A. Webster, 1879. (4550.)
- Hornblende.**—High Falls, Madawaska River, Blythfield, Renfrew county, O.—Coll., J. Richardson, (4553.)
- var. tremolite.—Lot 24, range IV. of Ross, Renfrew county, O.—Coll., C. W. Willimott, 1883. (615, 2528.)
- Sodalite.**—Ice River, branch of the Beaver-foot River, south of Kicking Horse Pass, Rocky Mountains, B. C. (5348.) Upright table-case 41.
- Garnet**, var. grossularite.—Lot 6, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883. (5466, 5525.)
- chromiferous, with pyroxene.—Lot 6, range XII. of Orford, Sherbrooke county, Q.—Coll., C. W. Willimott, 1887. (543.)
- var. almandite.—Chegoggin Point, Yarmouth, Yarmouth county, N.S.—Coll., L. W. Bailey, 1891. (4729.)
- Scapolite.**—Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878. (2526.)
- with wilsonite.—Lot 23, range XIII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878. (2521.)
- with wilsonite, pyroxene and apatite.—Lot 23, range XIII. of Templeton, Ottawa county, Q.—Presented by J. G. Miller, 1882. (4577.)

**Silicates, anhydrous—Continued.**

- Upright  
table-case  
41.—  
*Continued.*  
Upright  
table-case  
42.
- Scapolite.**—Island "D," Lake Clear, Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1884. (5523.)
- Cyanite.**—Lot 9, range 111, of Dryden, district of Nipissing, O.—Coll., A. E. Barlow, 1890. (5255, 6546.)
- Prehnite.**—Dalhousie, Restigouche county, N.B.—Coll., R. W. Ells, 1881. (4579.)
- Tourmaline,** in fetid calcite. Lot 10, range XI, of Chatham, Argenteuil county, Q.—Coll., C. W. Willimott, 1878. (2541.)
- in quartz.—Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1890. (5693.)

**Silicates, hydrous.**

- Upright  
table-case  
43.
- Apophyllite,** with stilbite.—Blomblon, King's county, N.S.—Coll., C. W. Willimott, 1883. (611.)
- Stilbite.**—Scot's Bay, King's county, N.S.—Coll., C. W. Willimott, 1883. (4590.)
- with calcite.—Partridge Island, Cumberland county, N.S.—Coll., R. W. Ells, 1876. (5529.)
- Cape d'Or, Cumberland county, N.S.—Coll., R. W. Ells, 1876. (4582.)
- West side of Fog Whistle, Cape d'Or, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5646, 5682.)
- Digby Neck, Digby county, N.S.—Coll., L. W. Bailey, 1892. (6519.)
- Analcite.**—West side of Horseshoe Cove, Cumberland county, N.S.—Coll., C. W. Willimott, 1888. (5681.)
- with natrolite.—Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1892. (6547.)
- Natrolite.**—Cape Split, King's county, N.S.—Coll., R. W. Ells, 1876. (531.)
- Stomach Mountain, King's county, N.S.—Coll., C. W. Willimott, 1883. (4598.)
- Biotite.**—West half of lot 13, range VI, of Ross, Renfrew county, O.—Coll., C. W. Willimott, 1879. (2532.)
- Phlogopite.**—Augmentation of Grenville, Argenteuil county, Q. (2544.)
- Lot 30, range V, of Portland, Ottawa county, Q.—Coll., C. W. Willimott, 1891. (6548.)
- Lot 9, range IX, of Templeton, Ottawa county, Q.—Coll., A. R. Selwyn, 1882. (608.)
- Lot 15, range VIII, of Templeton, Ottawa county, Q.—Coll., B. Harrington, 1878. (2531.)
- with plant inclusion.—The growth, a root, most probably a growing spruce (*Picea alba*)—was found embedded in a crystal of mica which measured 20' x 21'.—North half of lot 10, range V, of Hull, Ottawa county, Q.—Presented by E. B. Haycock, 1891. (5981.)
- with inclusion of albite, and intimately associated with this, crystals of apatite, pyrite and garnet.—Lot 10, range XII, of Hull, Ottawa county, Q.—Presented by T. F. Nellis, 1891. (611.)
- South half of lot 6, range I, of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883. (4925.)
- Lot 18, range II, of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1884. (5534.)

atinant.

Renfrew county, O.—Coll., C.  
 of Nipissing, O.—Coll., A. E.  
 R.—Coll., R. W. Ells, 1881.  
 XI. of Chatham, Argenteuil  
 mott, 1878. (2541.)  
 y, Q.—Coll., C. W. Willimott.

county, N.S.—Coll., C. W.  
 Coll., C. W. Willimott, 1883.  
 Cumberland county, N.S.—Coll.  
 S.—Coll., R. W. Ells, 1876

or, Cumberland county, N.S.  
 (5646, 5682.)  
 —Coll., L. W. Bailey, 1892  
 erland county, N.S.—Coll., C.  
 erland county, N.S.—Coll., C.  
 Coll., R. W. Ells, 1876. (531.  
 N.S.—Coll., C. W. Willimott

Renfrew county, O.—Coll., C.  
 tenil county, Q. (2544.)  
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awa county, Q.—Coll., A. R. C.  
 Ottawa county, Q.—Coll., B. J.

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 and embedded in a crystal  
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ely associated with this, crysta  
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 d by T. F. Nellis, 1891. (614  
 field, Ottawa county, Q.—Coll  
 (25.)

ttawa county, Q.—Coll., C. W.

**Silicates, hydrous—Continued.**

- Serpentine**, fibrous (var. chrysotile) and massive.—Lot 11, range VII. of Templeton, Ottawa county, Q.—Coll., H. J. Harrington, 1878. (2514.)  
 — var. picrotite.—Lot 6, range XV. of Shipton, Richmond county, Q.—Coll., J. Richardson. (4604.)  
**Talc.**—Lots 8 and 9, range V. of Grimsthorpe, Hastings county, O.—Presented by A. Moon, 1892. (5532.)  
**Pyralolite.**—Lot 8, range VI. of Ramsay, Lanark county, O.—Coll., C. W. Willimott, 1887. (5489.)

Upright  
table-case  
41.  
Continued.

Upright  
table-case  
41.

**Titano silicates.**

- Titanite.**—Lake Clear, Sebastopol, Renfrew county, O.—Presented by J. G. Miller, 1882. (5526.)  
 — with zircon.—Lot 31, range X. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883. (4538.)

**Phosphates.**

- Apatite.**—Lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1884. (3713, 4843.)  
 — with inclusion of calcite.—Lot 7, range IX. of Ross, Renfrew county, O.—Coll., C. W. Willimott, 1883. (4607.)  
 — Lake Clear, Sebastopol, Renfrew county, O.—Presented by J. G. Miller, 1882. (3710.)  
 — in calcite.—Island "D," Lake Clear, Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1884. (4609.)  
 — in calcite.—Lot 32, range II. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1891. (2554.)  
 — Rathwell lot, Bromley, Renfrew county, O.—Coll., C. W. Willimott, 1891. (6549.)

**Sulphates.**

- Barite.**—Five Islands, Colchester county, N.S.—Coll., S. Barlow, 1875. (2478.)  
**Celestite**, in dolomite.—Forks of the Credit, Caledon, Peel county, O.—Coll., C. W. Willimott, 1884. (4856.)  
**Gypsum.**—Hillsborough, Albert county, N.B.—Presented by J. T. Tomkins. (4612.)  
 — massive and fibrous.—Black Rock, Colchester county, N.S., opposite Maitland.—Coll., C. W. Willimott, 1884. (4613.)  
 — var. selenite.—Cape Blomidon, King's county, N.S.—Coll., C. W. Willimott, 1883. (4614.)  
 — var. selenite.—Hamilton Mountain, Barton, Wentworth county, O.—Coll., C. W. Willimott, 1884. (4857.)

**Tungstates.**

- Scheelite.**—Lot 1, range VII. of Marlow, Beauce county, Q.—Coll., W. P. Ferrier, 1891. (2572.)

## Separate table-cases.

## CASE A.

**Pyroxene**, hornblende, apatite, calcite and biotite.—Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3510.)

## CASE B.

**Mountain cork**—a kind of asbestos in which the fibres are so interlaced as to form a tough light mass.—Emerald mine, lot 19, range XII. of Buckingham, Ottawa county, Q.—This specimen—presented by F. W. Warwick, 1888—weighs 5 lbs. 10 ozs.—Laurentian, A. (5553.)

## CASE C.

**Calcite** (dog-tooth spar) with iron-pyrites.—Silver Islet, Lake Superior, district of Thunder Bay, O.—Presented by Captain Trethewey, 1882.—Cambrian, C 1. (4947.)

## CASE D.

**Albite**, tourmaline, muscovite and quartz.—Villeneuve mica mine, lot 31, range I. of Villeneuve, Ottawa county, Q.—Presented by L. H. Shirley, 1886.—Laurentian, A. (5281.)

## CASE E.

**Biotite**—broken off a mass which weighed about 340 lbs.—Lot 32, range XII. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883.—Laurentian, A. (4849.)

## CASE F.

**Amethyst**, associated with fluorite coated with iron-pyrites.—McKenzie River, Thunder Bay, Lake Superior, O.—Presented by R. Blackwood and Geo. McVicker, 1875.—Huronian, B. (5257.)

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## B.—COLLECTION OF ECONOMIC MINERALS AND ROCKS.

This, to which has been assigned a far larger space than that occupied by either of the other two related collections (*i. e.* the systematic collection of minerals and stratigraphical collection of rocks) in this section of the Museum, occupies the upright wall and wing-cases 1-28, the table-cases 34-48 and 69-71, also the upright table-cases 25-36.

The series of polished slabs of marbles are affixed to the ends of the wing-cases and in the recesses of the windows. The large specimens of minerals and rocks occupy brackets at the end and foot of the wing-cases, and other large objects,—such as columns and the like,—occupy a position in some of the recesses formed by the wing-cases.

NOTE.—The specimens illustrating the distribution of iron-ores have been arranged in a combined systematic and geographic manner, thereby admitting of a ready reference to the ores from any particular province. This reference is still further facilitated by placing the specimens from the different provinces upon variously coloured card-board covering the bottom of the containing tray. The Maritime provinces being represented by greenish-blue, the province of Quebec by purplish-brown, that of Ontario by dark bluish-grey, the province of Manitoba and the North-west Territory by olive-green and the province of British Columbia by salmon-red.

The following is a synopsis of the arrangement of this collection :

### I.—METALS AND THEIR ORES.

Antimony ores : bismuth ores : cobalt ores : copper ores : gold ores : iron ores : lead ores : mercury ores : nickel ores : platinum : silver ores : zinc ores.

### II.—MINERALS APPLICABLE TO CERTAIN CHEMICAL MANUFACTURES.

Apatite (phosphate of lime) : arsenopyrite (sulph-arsenide of iron) : celestite (sulphate of strontia) : chromic iron ore (chromate of iron) : iron pyrites (bisulphide of iron) : magnesite (carbonate of magnesia) : manganese ores (oxides of manganese) : molybdenite (sulphide of molybdenum) : scheelite (tungstate of lime).

### III.—MINERALS USED IN THE PRODUCTION OF LIGHT AND HEAT.

Albertite : anthracite : bituminous shale : coal : lignite : mineral tar : oil shale : peat : petroleum.

**IV.—MINERALS (AND MATERIAL MANUFACTURED FROM CERTAIN OF THE SAME) APPLICABLE TO COMMON AND DECORATIVE CONSTRUCTION.**

Brick clays, bricks and drain-tiles: dolomites; gneisses: granites: gypsum, anhydrite and plaster-of-Paris: labradorite rock: limestones: marbles, limestone and serpentine: raw cement stones and hydraulic limes: raw limestones and common limes: roofing slates: sandstones: syenites.

**V.—MINERALS EMPLOYED AS PIGMENTS.**

Barytes: iron ochres: steatite.

**VI.—REFRACTORY (FIRE RESISTING) MINERALS.**

Asbestos: fire-clay: graphite: mica: potstone or compact chlorite: sandstone, refractory: soapstone or steatite.

**VII.—BRINES, SALT, AND MINERAL WATERS.**

Brines: mineral waters: salt, common.

**VIII.—MINERALS APPLICABLE TO THE FINE ARTS AND JEWELLERY.**

Actinolite in quartz (Théris hair-stone): agates: alabaster: albite: amethyst: asteriated quartz: aventurine felspar: carnelian: epidote: garnet: heliotrope: jasper: jasper conglomerate: labradorite: lithographic stone: microline: (amazonstone): nephrite: obsidian: peristerite: perthite: porphyries: retinite: scapolite: serpentine: sodalite: thomsonite: tourmaline.

**IX.—MINERALS EMPLOYED, WITH OR WITHOUT PREVIOUS PREPARATION, AS FERTILIZERS.**

Apatite; gypsum: marls.

**X.—MINERALS EMPLOYED FOR GRINDING AND POLISHING.**

Infusorial earth or earthy tripolite: marl, arenaceous and calcareous: mica-slates: sandstones: silicious sand and silt.

**XI.—MINERALS OF MISCELLANEOUS APPLICATION.**

Felspar, suitable for the manufacture of porcelain: moulding sands: quartz, quartz sand and sandstone, suitable for glass making: soap-clay employed as a detergent.

MANUFACTURED FROM  
ABLE TO COMMON

es; gneisses; granites:  
orite rock; limestones:  
at stones and hydrau-  
; roofing slates; sand-

TERALS.

me or compact chlorite:

TERS.

E FINE ARTS AND

ates: alabaster; albite:  
r: carnelian; epidote:  
ate: labradorite; litho-  
chlorite; obsidian; peri-  
olite; serpentine; soda-

WITHOUT PREVIOUS

NG AND POLISHING.

naceous and calcareous:

PLICATION.

elain: moulding sands:  
or glass making: soap-

## I.—METALS AND THEIR ORES.

### GOLD ORES.

#### Gold-bearing Quartz.

- Auriferous quartz.**—Lawrencetown, Halifax county, N.S.—Coll., A. R. C. Selwyn, 1870.—Cambrian, C 1. (378.)
- (quartz with mispickel).—Lawrencetown, Halifax county, N.S.—Coll., A. R. C. Selwyn, 1870.—Cambrian, C 1. (421.)
- (quartz with mispickel).—Belt lead, Albion mine, Montagu, Halifax county, N.S.—Presented by Mr. Lawson, 1870.—Cambrian, C 1. (384.)
- Lydia and Sarah lead, Montagu mine, Montagu, Halifax county, N.S.—Coll., A. R. C. Selwyn, 1870.—Cambrian, C 1. (385.)
- Ross lead, Montagu mine, Montagu, Halifax county, N.S.—Presented by W. J. Smart, 1890.—Cambrian, C 1. (2474.)
- Waverley, Halifax county, N.S.—Cambrian, C 1. (437.)
- Jennings' Diggings, Musquodoboit, Halifax county, N.S.—Presented by A. Michel, 1869.—Cambrian, C 1. (386.)
- Nigger lead (from middle of vein—70 ft).—Tangier, Halifax county, N.S.—Cambrian, C 1. (387.)
- Nigger lead (hanging wall), Tangier, Halifax county, N.S.—Cambrian, C 1. (428.)
- Leary lead (hanging wall), Tangier, Halifax county, N.S.—Presented by Mr. Crossland, 1870.—Cambrian, C 1. (392.)
- Baker's mine (200 feet from surface), Oldham, Halifax county, N.S.—Cambrian, C 1. (422.)
- Oldham, Halifax county, N.S.—Cambrian, C 1. (435.)
- Irving belt, Mooseland, Halifax county, N.S.—Cambrian, C 1. (473.)
- Waverley, Halifax county, N.S.—Cambrian, C 1. (425.)
- From cross vein, Waverley, Halifax county, N.S.—Cambrian, C 1. (471.)
- Killog mine, Sheet Harbour, Halifax county, N.S.—Presented by George Stewart, 1888.—Cambrian, C 1. (5749.)
- Upper Stewiacke, Colchester county, N.S.—Coll., A. R. C. Selwyn, 1870.—Cambrian, C 1. (381.)
- Brook lode, Renfrew, Hants county, N.S.—Cambrian, C 1. (382.)
- Central Rawdon gold mine, Rawdon, Hants county, N.S.—Presented by Gould Northup, 1890.—Cambrian, C 1. (2461.)
- Wine Harbour, Guysborough county, N.S.—Coll., A. R. C. Selwyn, 1870.—Cambrian, C 1. (423.)
- Goldenville, Sherbrooke, Guysborough county, N.S.—Cambrian, C 1. (427.)
- Crows Nest mine, St. Mary's, Guysborough county, N.S.—Presented by Alex. Muckenzie, 1887.—Cambrian, C 1. (5362.)

Upright  
wall-case  
1.

## GOLD ORES—Continued.

## Gold bearing Quartz—Continued.

- U. right  
wall-case  
1.—  
Continued.
- Auriferous quartz**—Gold River, Lunenburg county, N.S.—Cambrian, C 1. (393.)
- Yellow Jacket vein. (2470.) } Caledonia Gold Field, Caledonia,  
— Dunbrecht vein. (2471.) } Queen's county, N.S.  
— Centre vein. (2472.) } Coll., A. R. C. Selwyn, 1890.  
— Cole vein. (2473.) } Cambrian, C 1.
- St. Giles de Beauvillage, Lotbinière county, Q.—Pre-Cambrian,  
B? (372.)
- Handkerchief mine, St. Giles de Beauvillage, Lotbinière county, Q.  
— Pre-Cambrian, B? (417.)
- St. François, seigniory of Rigaud-Vaudreuil, Beauce county, Q.—  
Cambrian, C. (373.)
- Devil's Rapids, Chaudière River, St. François, seigniory of Rigaud-  
Vaudreuil, Beauce county, Q.—Cambrian, C. (374.)
- Lot 30, range I, seigniory of Aubert-Gallion, Beauce county, Q.—  
Cambrian, C. (377.)
- Wollaston, Hastings county, O.—Presented by Wm. Sheppard,  
1883.—Archean, A. B. (430.)
- (quartz with mispickel).—Gillen mine, lot 6, range VIII, of Marmora,  
Hastings county, O.—Coll., H. G. Vennor, 1871.—Archean,  
A. B. (324.)
- (quartz with mispickel).—Gatling mine, lot 9, range VIII, of Mar-  
mora, Hastings county, O.—Coll., H. G. Vennor, 1871.  
Archean, A. B. (4823.)
- Gladstone mine, lot 17, range XI, of Marmora, Hastings county, O.  
—Presented by Hon. Billu Flint, 1869.—Archean, A. B.  
(439.)
- Lot 12, Hastings road, Tudor, Hastings county, O.—Presented by  
W. Sheppard, 1883.—Archean, A. B. (436.)
- Cragg's gold mine, Tudor, Hastings county, O.—Archean, A. B.  
(1011.)
- East half of lot 20, range I, of Belmont, Peterborough county, O. —  
Coll., H. P. Brunnell, 1891.—Archean, A. B. (5141.)
- Victoria Cape, Jackfish Bay, opposite Slate Islands, Lake Superior,  
O.—Coll., R. Bell, 1870.—Huronian, B. (380.)
- Partridge Lake, district of Thunder Bay, O.—Coll., R. Bell, 1870.  
—Huronian, B. (389.)
- Huronian mine, lot H 1, township of Moss, district of Thunder Bay,  
O.—Coll., R. Bell, 1870.—Huronian, B. (429.)
- South side of Upper Lake Shebandowan, district of Thunder Bay,  
O.—Coll., R. Bell, 1870.—Huronian, B. (415.)
- Sultana mine, Lake of the Woods, district of Rainy River, O. —  
Coll., A. R. C. Selwyn, 1888.—Huronian, B. (5584.)
- Snowshoe Mount, Richfield, Cariboo, B.C. (390.)

Gold-bearing rocks other than quartz, also auriferous arsenopyrite  
and stibnite.

- Auriferous conglomerate**—Gay's River, Colechester county, N.S.—Presented  
by H. S. Poole, 1887.—Carboniferous, G. (5459.)

nty, N.S.—Cambrian, C 1.

a Gold Field, Caledonia,

county, N.S.

R. C. Selwyn, 1890.

, C 1.

county, Q.—Pre-Cambrian,

avage, Lotbinière county, Q.

dreuil, Beauce county, Q.—

ancois, seigniory of Rigaud-

Cambrian, C. (374.)

illion, Beauce county, Q.—

ented by Wm. Sheppard.

ot 6, range VIII. of Marmora,

i. Vennor, 1871.—Archean.

, lot 9, range VIII. of Mar-

l., H. G. Vennor, 1871.—

armora, Hastings county, O.

nt, 1869.—Archean, A. B.

county, O.—Presented by

A. B. (436.)

county, O.—Archean, A. B.

, Peterborough county, O.

chean, A. B. (5141.)

plate Islands, Lake Superior,

anian, B. (380.)

ay, O.—Coll., R. Bell, 1870.

oss, district of Thunder Bay,

anian, B. (429.)

an, district of Thunder Bay,

anian, B. (415.)

istrict of Rainy River, O.

uronian, B. (5584.)

.C. (390.)

auriferous arsenopyrite

er county, N.S.—Presented

erous, G. (5459.)

**GOLD ORES—Continued.**

**Gold-bearing rocks (other than quartz), also auriferous arsenopyrite and stibnite—Continued.**

- Auriferous veinstone.**—Montagn, Halifax county, N.S.—Coll., A. R. C. Selwyn, 1870.—Cambrian, C 1. (391.)
- **mispickel** (arsenopyrite).—Gatling mine, lot 9, range VIII. of Marmora, Hastings county, O.—Coll., H. G. Vennor, 1871.—Archean, A. B. (412.)
- **dolomite.**—Lot 15, range XIV. of Leeds, Megantic county, Q.—Pre-Cambrian, B? (394.)
- **antimony ore** (stibnite).—Claren Ion, Frontenac county, O.—Presented by W. Sheppard, 1883.—Laurentian, A. (438.)
- **felspathic rock.**—Cahill's mine, Rawdon, Montcalm county, Q.—Laurentian, A. (982.)
- **gneiss.**—Dorwin's mill, Rawdon, Montcalm county, Q.—Laurentian A. (981.)
- **rock** (limestone with pyrite).—Dorwin's mill, Rawdon, Montcalm county, Q.—Laurentian, A. (980.)
- **dolomite** with tetrahedrite).—Lot 1, range VI. of Madoc, Hastings county, O.—Coll., H. G. Vennor, 1868. (333.)
- **rock.**—Richardson mine, lot 18, range V. of Madoc, Hastings county, O.—Archean, A. B. (424.)
- **vein-stuff,** Richardson mine, lot 18, range V. of Madoc, Hastings county, O.—Archean, A. B. (371.)

Upright  
wall-case  
1.—  
Continued.

**Specimens of native gold separated from the matrix.**

- Native gold.**—Richardson mine, lot 18, range V. of Madoc, Hastings county, O. —(398-403.)
- Lot 15, range IV. of Madoc, Hastings county, O. (409.)
- do 16, do VI. do do (397.)
- do 18, do VII. do do (406.)
- do 10, do IX. of Hungerford do (405.)
- do 5, do II. of Elzevir do (420.)

**Placer Gold.**

- Alluvial Gold.**—Gilbert River (Touffe des Pins), seigniory of Rigaud-Vaudreuil, Beauce county, Q. (986.)
- Lot 11, concession St. Charles, north-east side of Gilbert River (15 feet below river level), seigniory of Rigaud-Vaudreuil, Beauce county, Q. (999.)
- Lot 7, concession St. Charles, Gilbert River (80 feet below river level), seigniory of Rigaud-Vaudreuil, Beauce county, Q. (1005.)
- Lot 14, concession De Léry, Gilbert River lead, seigniory of Rigaud-Vaudreuil, Beauce county, Q. (1000.)
- Lot 14, concession De Léry (from gravel on clay 1 to 4 feet), seigniory of Rigaud-Vaudreuil, Beauce county, Q. (1006.)
- Lot 17, concession De Léry (from bank 8 feet above Gilbert River), seigniory of Rigaud-Vaudreuil, Beauce county, Q. (1004.)

GOLD ORES—*Continued.*Placer Gold—*Continued.*

- Upright  
wall-case  
1.—  
*Continued.*
- Alluvial Gold.**—Devils Rapids, Chaudière River, St. Francois, seigniory of Rigaud-Vaudreuil, Beauce county, Q. (1002.)
- Lot 27, range I. of St. Francois, seigniory of Rigaud-Vaudreuil, Beauce county, Q. (1010.)
- Loubier Creek, St. Francois, seigniory of Rigaud-Vaudreuil, Beauce county, Q. (1008.)
- Rivière des Plantes (Guillaume), seigniory of Rigaud-Vaudreuil, Beauce county, Q. (1001.)
- Lot 16, concession Chaussegros, seigniory of Rigaud-Vaudreuil, Beauce county, Q. (1009.)
- Lot 29, concession St. George, seigniory of Aubert-Gallion, Beauce county, Q. (1007.)
- Jersey Point, Rivière du Loup, Beauce county, Q. (1003.)  
Specimens numbered 999 to 1010 inc., were presented by W. P. Lockwood.
- Chaudière River, Beauce county, Q. (395, 416, 418.)
- Chaudière River, between Gilbert River and St. Francois, seigniory of Rigaud-Vaudreuil, Beauce county, Q. (446.)
- Three miles up the Gilbert River (Fouffe des Plas), seigniory of Rigaud-Vaudreuil, Beauce county, Q. (449.)
- Rivière des Plantes (Guillaume) seigniory of Rigaud-Vaudreuil, Beauce county, Q. (448, 453.)
- From creek below Bolduc's, seigniory of Rigaud-Vaudreuil, Beauce county, Q. (446.)
- From creek, west side of the Chaudière River, at Ste. Marie, seigniory of St. Joseph, Beauce county, Q. (447.)
- From creek, west side of the Chaudière River, half a mile below St. Joseph Church, seigniory of St. Joseph, Beauce county, Q. (456.)
- Rivière du Bras, Beauce county, Q. (467.)
- Chaudière River, above south-east line of Fief St. Charles, seigniory of Aubert de l'Isle, Beauce county, Q. (450.)
- Ruissseau St. Henry or Lady Fair stream, above south-east line of Fief St. Charles, Beauce county, Q. (457.)
- East branch of Rivière du Bras, township of Tring, Beauce county, Q. (462.)
- Rivière du Loup, Beauce county, Q.—Presented by A. A. Humphrey. (985.)
- Rivière du Loup, above Jersey line, Beauce county, Q. (445.)
- Rivière du Loup, half a mile above the Chaudière. (452.)
- Famine River, township of Watford, Dorchester county, Q. (451, 984.)
- River Samson, Beauce county, Q. (455.)
- Pozer's stream, township of Shenley, Beauce county, Q. (459.)
- River Oliva, Kennebec Road range, Beauce county, Q. (463.)
- Travellers' Rest River, Kennebec Road range, Beauce county, Q. (464.)
- Kempt stream, Kennebec Road range, Beauce county, Q. (465.)
- Rivière Grand Coudée, Kennebec Road range, Beauce county, Q. (454.)
- Trout River, township of Jersey, Beauce county, Q. (468.)
- Outlet of Lake Archer, Lake Etchemin, Dorchester county, Q. (458.)

**GOLD ORES—Continued.**

**Placer Gold—Continued.**

- Alluvial Gold.**—Bishops clearing, River St. Francis, Dudswell, Wolfe county, Q. (444.)
- Dudswell Road, ten miles from Sherbrooke, Sherbrooke county, Q. (460.)
- Dudswell Road, seven miles west of Sherbrooke, Sherbrooke county, Q. (461.)
- Magog River, above Sherbrooke, Sherbrooke county, Q. (983.)
- Models of nuggets from the tributaries of the Chaudière River, Beauce county, Q. (978.)
- Model of nugget from Oméca, B.C. (979.)

Upright wall-case 1.—Continued.

The following, although essentially ores of silver are, inasmuch as space could not be found for them in a more appropriate place, also shown in this case.

- Silver ore.**—Location 96 T, township of Gillies, district of Thunder Bay, O.—Presented by T. A. Keefer, 1888.—Cambrian, C 1. (3637.)
- Idaho Mountain, south-east side of Stump Lake, Nicola Valley, B.C. (5491.)
- Star claim, Stump Lake, Nicola Valley, B.C.—Presented by G. Henderson, 1888. (5706.)
- Joshua claim, south-east side of Stump Lake, Nicola Valley, B.C.—Presented by the Nicola Milling and Mining Co., Wm. Craib, Mgr. (5707.)
- Tubal Cain claim, south-east side of Stump Lake, Nicola Valley, B.C.—Presented by the Nicola Milling and Mining Co., Wm. Craib, Mgr. (5708.)
- King William claim, south-east side of Stump Lake, Nicola Valley, B.C.—Presented by the Nicola Milling and Mining Co., Wm. Craib, Mgr. (5709.)

**GOLD AND SILVER ORES.**

**Gold and Silver Ores from the Province of British Columbia.**

**I.—EAST KOOTANIE DISTRICT.**

- Vitreous copper ore** and copper pyrites in quartz—argentiferous.—“Copper Bonanza” claim, Wet-feet Creek, Otter-tail Creek, near Otter-tail Station, C.P.R.—Coll., R. G. McConnell, 1886. (5352.)
- Galena**, argentiferous.—“Loris” claim, about one and three-quarter miles east of Otter-tail station, C.P.R.—Coll., R. G. McConnell, 1886. (5353.)
- zinc blende and copper pyrites—argentiferous.—“Pioneer” claim, Otter-tail Creek, near Otter-tail station, C.P.R.—Coll., R. G. McConnell, 1886. (5354.)
- argentiferous.—“Carleton” claim, Mount Stephen (Tunnel Mountain).—Coll., R. G. McConnell, 1886. (5355.)
- argentiferous.—“Cornucopia” claim, Mount Stephen (Tunnel Mountain).—Coll., R. G. McConnell, 1886. (5356.)

Table-case 47.

GOLD AND SILVER ORES—*Continued.*From the Province of British Columbia—*Continued.*1.—EAST KOOTANIE DISTRICT—*Continued.*

Table-case 47.— <i>Continued.</i>	Galena, argentiferous.—“Monarch” claim, Mount Stephen (Tunnel Mountain).—Coll., R. G. McConnell, 3, 1886. (5357.)
—	argentiferous.—“Alpha” claim, Mount Field.—Coll., R. G. McConnell, 1886. (5361.)
—	argentiferous.—Vicinity of Field Station, C.P.R. (5345.)

A.—*McMurdo Mining Area.*

Galena, argentiferous.—“Crescent” claim. (5809.)
— do “Syenite Bluff” claim, Deception Creek. (5810.)
— do “Black Horse” do do do. (5812.)
— do “Mascot” do Copper Creek. (5813.)
— do “Jumbo” do Toby Creek, (5814.)

## 2.—WEST KOOTANIE DISTRICT.

A.—*Toad Mountain mining camp and vicinity.*

Purple copper ore, copper pyrites and grey copper (tetrahedrite)—argentiferous.—“Silver King” claim.—Coll., G. M. Dawson, 1889. (5815.)
— argentiferous.—“Silver King” claim.—Coll., G. M. Dawson, 1889. (5816.)
Copper pyrites and grey copper (tetrahedrite)—argentiferous.—“Kootanie Bonanza” claim.—Coll., G. M. Dawson, 1889. (5817.)
— and grey copper (tetrahedrite) in quartz—argentiferous.—“Dandy” claim.—Coll., G. M. Dawson, 1889. (5818.)
Galena, zinc blende and copper pyrites in quartz—argentiferous.—“Dandy” claim.—Coll., G. M. Dawson, 1889. (5819.)
Copper pyrites, iron pyrites and grey copper (tetrahedrite) in quartz—argentiferous.—“Tough-nut” claim.—Coll., G. M. Dawson, 1889. (5820.)
Iron pyrites, copper pyrites, grey copper (tetrahedrite) and zinc blende—argentiferous.—“Tough-nut” claim.—Coll., G. M. Dawson, 1889. (5821.)
Grey copper (tetrahedrite) with copper pyrites—argentiferous.—“Grizzly” claim.—Coll., G. M. Dawson, 1889. (5822.)
Galena and iron pyrites in quartz—argentiferous.—“Evening Tide” claim.—Coll., G. M. Dawson, 1889. (5823.)
Galena, copper pyrites, iron pyrites, zinc blende and grey copper (tetrahedrite)—argentiferous.—“Iroquois” claim.—Coll., G. M. Dawson, 1889. (5824.)
Copper pyrites and grey copper (tetrahedrite)—argentiferous.—“Iroquois” claim.—Coll., G. M. Dawson, 1889. (5825.)
Grey copper (tetrahedrite), copper pyrites and iron pyrites—argentiferous.—“Iroquois” claim.—Coll., G. M. Dawson, 1889. (5826.)
Ore from the Cottonwood mine.—Worked for gold.—Coll., G. M. Dawson, 1889. (5827-32.)

- (1.) Specimen showing general character of much of the rock. (5827)
- (2.) Decomposed schist. (5828.)
- (3.) Decomposed vein matter. (5829.)
- (4.) Decomposed vein matter carrying native gold. (5830.)
- (5.) Undecomposed kernel in ore mass. (5831.)
- (6.) Specimen of a swell vein some parts of which assayed \$1,300 per ton. (5832.)



3—Continued.

umbria—Continued.

—Continued.

at Stephen (Tunnel Mount-  
1886. (5357.)

ount Field.—Coll., R. G.

on, C.P.R. (5345.)

Area.

ception Creek. (5810.)  
do do. (5812.)

pper Creek. (5813.)

oy Creek. (5814.)

DISTRICT.

) and vicinity.

(tetrahedrite)—argentiferous.  
G. M. Dawson, 1889. (5815.)

—Coll., G. M. Dawson, 1889.

argentiferous.—“Kootanie Bon-  
son, 1889. (5817.)z—argentiferous.—“Dandy”  
889. (5818.)z—argentiferous.—“Dandy”  
1889. (5819.)rbedrite) in quartz—argenti-  
—Coll., G. M. Dawson, 1889.rite) and zinc blende—argenti-  
—Coll., G. M. Dawson, 1889.s—argentiferous.—“Grizzly”  
889. (5822.).—“Evening Tide” claim.—  
823.)and grey copper (tetrahed-  
is” claim.—Coll., G. M. Daw-—argentiferous.—“Iroquois”  
889. (5825.)iron pyrites—argentiferous.—  
M. Dawson, 1889. (5826.)

—Coll., G. M. Dawson, 1889.

er of much of the rock. (5827.)

) and native gold. (5830.)

s. (5831.)

parts of which assayed \$1,300 p

## GOLD AND SILVER ORES—Continued.

## From the Province of British Columbia—Continued.

## 2.—WEST KOOTANIE DISTRICT—Continued.

## A.—Tweed Mountain mining camp and vicinity—Continued.

Galena—argentiferous. Surface rock.—“Umatilla” and “Uncle Sam” claims,  
Labeau Mines, east side of Cottonwood-Smith Creek, about  
two miles and a-half from Nelson. (5833.)Galena, zinc blende and copper pyrites—argentiferous.—“Umatilla” and  
“Uncle Sam” claims, Cottonwood-Smith Creek.—Coll., G.  
M. Dawson, 1889. (5834.)— and zinc blende—argentiferous.—“Apex” claim, Labeau Mines,  
Cottonwood-Smith Creek.—Coll., G. M. Dawson, 1889.  
(5835.)— argentiferous.—“Apex” claim, Labeau Mines, Cottonwood-Smith  
Creek.—Coll., G. M. Dawson, 1889. (5836.)Iron pyrites and copper pyrites in quartz—auriferous.—“Poorman” claim,  
about four miles west of Nelson. (5837.)

## B.—Hot Springs (or Ainsworth) mining camp.

Galena—argentiferous.—“Little Donald” claim.—Coll., G. M. Dawson, 1889.  
(5838.)

— argentiferous.—“Krao” claim.—Coll., G. M. Dawson, 1889. (5839.)

— do “Sunrise” do do (5840.)

Native silver.—“Number One” claim.—Coll., G. M. Dawson, 1889. (5841.)

Galena, zinc blende and iron pyrites—argentiferous.—“Number One” claim.—  
Coll., G. M. Dawson, 1889. (5842.)— and iron pyrites with native silver.—“Number One” claim.—Coll.,  
G. M. Dawson, 1889. (5843.)— zinc blende and iron pyrites—argentiferous.—“Number One”  
claim.—Coll., G. M. Dawson, 1889. (5844.)— argentiferous.—“United” claim.—Coll., G. M. Dawson, 1889.  
(5845.)— argentiferous.—“Black Chief” claim.—Coll., G. M. Dawson, 1889.  
(5846.)— zinc blende and iron pyrites in calcite—argentiferous.—“Sweden”  
claim.—Coll., G. M. Dawson, 1889. (5847.)— argentiferous.—“Spokane” claim.—Coll., G. M. Dawson, 1889.  
(5848.)— and copper pyrites—argentiferous.—“Jeff Davis” claim.—Coll., G.  
M. Dawson, 1889. (5849.)Weathered quartz rock.—“Sky Line” claim.—Coll., G. M. Dawson, 1889.  
(5850.)

Galena—argentiferous.—“Della” claim.—Coll., G. M. Dawson, 1889. (5851.)

Galena with iron and copper pyrites—argentiferous.—“Tiger” claim.—Coll.,  
G. M. Dawson, 1889. (5852.)Galena, in calcite—argentiferous.—“Dictator” claim.—Coll., E. D. Ingall,  
1892. (42.)— with zinc blende in quartz—argentiferous.—“Dictator” claim.—  
Coll., E. D. Ingall, 1892. (43.)— with some iron pyrites in quartz—argentiferous.—“Highlander”  
claim.—Coll., E. D. Ingall, 1892. (44.)— with some zinc blende, in dolomitic limestone—argentiferous.—  
“Neosho” claim.—Coll., E. D. Ingall, 1892. (45.)Table-case  
47.—  
Continued.Table-case  
48.

## GOLD AND SILVER ORES—Continued.

## From the Province of British Columbia—Continued.

## 2.—WEST KOOTANIE DISTRICT—Continued.

## B.—Hot Springs (or Ainsworth) mining Camp—Continued.

Table-case 48.— Continued.	<b>Zinc blende</b> with native silver, in dolomitic limestone.—“Neosho” claim.—Coll., E. D. Ingall, 1892. (46.)
	<b>Weathered rock</b> .—“Neosho” claim.—Coll., E. D. Ingall, 1892. (47.)

## C.—Hendryr mining camp.

<b>Galena</b> , zinc blende, magnetic pyrites and copper pyrites—argentiferous.—“Blue Bell” claim.—Coll., G. M. Dawson, 1889. (5853.)
<b>Zinc blende</b> .—“Blue Bell” claim.—Coll., G. M. Dawson, 1889. (5854.)
<b>Galena</b> —argentiferous.—“Blue Bell” claim.—Coll., G. M. Dawson, 1889. (5855.)
<b>Quartz</b> , with a little galena and alteration product of same.—“Blue Bell” claim.—Coll., G. M. Dawson, 1889. (5856.)
<b>Galena</b> , zinc blende and iron pyrites—argentiferous.—“Kootanie Chief” claim.—Coll., G. M. Dawson, 1889. (5857.)
<b>Galena</b> , zinc blende, magnetic pyrites and copper pyrites—argentiferous.—“Kootanie Chief” claim.—Coll., G. M. Dawson, 1889. (5858.)

## D.—Illecillewaet Mines.

<b>Galena</b> , with grey copper tetrahedrite in quartz—argentiferous.—“Isabella” claim, Illecillewaet River.—G. R. Wright, 1887. (5460.)
<b>Quartz</b> , with small quantities of grey copper (tetrahedrite) and green carbonate.—“Sailor Boy” claim, Illecillewaet River.—G. R. Wright, 1887. (5461.)
<b>Galena</b> —argentiferous.—“Lanark” claim, Illecillewaet River.—G. R. Wright, 1887. (5462.)
<b>Galena</b> and zinc blende—argentiferous.—“Balfour” claim, Illecillewaet River.—G. R. Wright, 1887. (5463.)
<b>Iron pyrites</b> with galena in quartz—argentiferous.—“Jumbo” claim.—Coll., E. D. Ingall, 1892. (48.)
— “Sanquahar” claim.—Coll., E. D. Ingall, 1892. (49.)
<b>Galena</b> —argentiferous.—“Maple Leaf” claim, thirty-three miles east of Revelstoke, and within a mile of the C.P.R. (5346.)
<b>Galena</b> (weathered) in a quartzose gangue—argentiferous.—“Maple Leaf” claim.—Coll., E. D. Ingall, 1892. (50.)
<b>Galena</b> in quartz—argentiferous.—“Cariboo” claim.—Coll., E. D. Ingall, 1892. (51.)
<b>Iron pyrites</b> , galena and zinc blende, in quartz—argentiferous.—“Cariboo” claim.—Coll., E. D. Ingall, 1892. (52.)
<b>Galena</b> , in quartz—argentiferous.—“Edinburgh” claim.—Coll., E. D. Ingall, 1892. (53.)
<b>Galena</b> —argentiferous.—“Elizabeth” claim.—Coll., E. D. Ingall, 1892. (54.)
<b>Ochre</b> do do do do (55.)
<b>Galena</b> , in a quartzose gangue—argentiferous.—“Herring-back” claim.—Coll., E. D. Ingall, 1892. (56.)
<b>Zinc blende</b> with iron pyrites, in dolomitic limestone.—“Herring-back” claim.—Coll., E. D. Ingall, 1892. (57.)

S—Continued.

Columbia—Continued.

—Continued.

ing Camp—Continued.

ne.—“Neosho” claim.—Coll.

D. Ingall, 1892. (47.)

Camp.

Copper pyrites—argentiferous.

M. Dawson, 1889. (5853.)

Dawson, 1889. (5854.)

Coll., G. M. Dawson, 1889.

Product of same.—“Blue Bell”

1889. (5856.)

s.—“Kootanie Chief” claim.

(5857.)

Copper pyrites—argentiferous.

Coll., G. M. Dawson, 1889.

est.

—argentiferous.—“Isabella”

R. Wright, 1887. (5460.)

Sphalerite and green carbonate.

Illaewat River.—G. R. Wright.

Illaewat River.—G. R. Wright.

“Jumbo” claim.—Coll., E.

Ingall, 1892. (49.)

Twenty-three miles east of Revel.

C.P.R. (5346.)

Copper pyrites.—“Maple Leaf”

2. (50.)

n.—Coll., E. D. Ingall, 1892.

—argentiferous.—“Cariboo”

2. (52.)

claim.—Coll., E. D. Ingall.

E. D. Ingall, 1892. (54.)

do do (55.)

“Herring-back” claim.—Coll.

e.—“Herring-back” claim.—

## GOLD AND SILVER ORES—Continued.

## From the Province of British Columbia—Continued.

## 2.—WEST KOOTANIE DISTRICT—Continued.

## D.—Illaewat Mines—Continued.

**Galena.**—An association of a somewhat finely crystalline (so-called “spangle” ore) and very fine crystalline (so-called “steel ore”) galena, with some iron pyrites—argentiferous.—“Fishburn” claim.—Coll., E. D. Ingall, 1892. (60.)

Table-case  
48.—  
Continued.

**Zinc blende.**—“Fishburn” claim.—Coll., E. D. Ingall, 1892. (61.)

**Galena,** with some zinc blende—argentiferous.—“Dunvegan” claim.—Coll., E. D. Ingall, 1892. (62.)

**Galena** with iron pyrites in quartz—argentiferous.—“Dunvegan” claim.—Coll., E. D. Ingall, 1892. (63.)

**Zinc blende.**—“Dunvegan” claim.—Coll., E. D. Ingall, 1892. (64.)

**Galena,** in quartz—argentiferous.—“Gold Hill” claim.—Coll., E. D. Ingall, 1892. (65.)

**Bornite,** in quartz—argentiferous.—“Silver Bow” claim.—Coll., E. D. Ingall, 1892. (146.)

**Copper pyrites** in a gangue of dolomite with quartz.—“Silver Bow” claim.—Coll., E. D. Ingall, 1892. (153.)

**Weathered rock.**—“Florence” claim.—Coll., E. D. Ingall, 1892. (154.)

**Galena**—argentiferous.—“Union” claim.—Coll., E. D. Ingall, 1892. (155.)

— in a calcareous gangue.—“Lady of the Lake” claim.—Coll., E. D. Ingall, 1892. (156.)

— “Ibex” claim.—Coll., E. D. Ingall, 1892. (157.)

— with iron pyrite in quartz.—“Ibex” claim.—Coll., E. D. Ingall, 1892. (158.)

**Zinc blende**—“Ibex” claim.—Coll., E. D. Ingall, 1892. (159.)

**Galena** in quartz—argentiferous.—“Shakespeare” claim, north-east arm of Upper Arrow Lake. (5860.)

## E.—Kasto-Slocan Mines.

**Galena**—argentiferous.—“Triangle” claim.—Coll., E. D. Ingall, 1892. (160.)

— with some iron pyrites.—“Yosemite” claim.—Coll., E. D. Ingall, 1892. (161.)

— “Montezuma” claim.—Coll., E. D. Ingall, 1892. (162.)

**Ochreous earth.**—“Montezuma” claim.—Coll., E. D. Ingall, 1892. (165.)

**Galena** with some copper pyrites—argentiferous.—“White Heather” claim.—E. D. Ingall, 1892. (169.)

**Galena**—argentiferous.—“Payne” claim.—Coll., E. D. Ingall, 1892. (225.)

Table-case  
70.

**Galena**—with some copper pyrites in a quartzose gangue.—“Beaver” claim.—Coll., E. D. Ingall, 1892. (226.)

**Zinc blende** in limestone.—“Silver Tip” claim.—Coll., E. D. Ingall, 1892. (227.)

**Galena**—argentiferous.—“Monte Christo” claim.—Coll., E. D. Ingall, 1892. (228.)

**Zinc blende.**—“Monte Christo” claim.—Coll., E. D. Ingall, 1892. (229.)

**Galena** in dolomite limestone—argentiferous.—“Solo” claim.—Coll., E. D. Ingall, 1892. (232.)

**Quartzite-felspathic rock** with limestone, carrying a little iron pyrites.—“Iron Horse” claim.—Coll., E. D. Ingall, 1892. (233.)

GOLD AND SILVER ORES—*Continued.*From the Province of British Columbia—*Continued.*2.—WEST KOOTANIE DISTRICT—*Continued.*E.—Kaslo-Slocan Mines—*Continued.*

Table-case 70.— <i>Continued.</i>	<b>Galena</b> —argentiferous.—“ <i>Lucky Jim</i> ” claim.—Coll., E. D. Ingall, 1892. (235.) in dolomitic limestone.—“ <i>Noble Five</i> ” claim.—Coll., E. D. Ingall, 1892. (246.) — “ <i>Great Western</i> ” claim.—Coll., E. D. Ingall, 1892. (261.) — “ <i>Washington</i> ” do do do (266.) — (so-called “ <i>ribbed</i> ” ore).—“ <i>Blue Bird</i> ” claim.—Coll., E. D. Ingall, 1892. (268.) — (so-called “ <i>spangle</i> ” ore).—“ <i>Blue Bird</i> ” claim.—Coll., E. D. Ingall, 1892. (269.) — (so-called “ <i>curved face</i> ” ore).—“ <i>Blue Bird</i> ” claim.—Coll., E. D. Ingall, 1892. (270.) — “ <i>Slocan Boy</i> ” claim.—Coll., E. D. Ingall, 1892. (271.) — (so-called <i>steel-ore</i> ) with dark red silver ore.—“ <i>Dardanelles</i> ” claim.—Coll., E. C. Ingall, 1892. (272.) — in quartz—argentiferous.—“ <i>Okanagan</i> ” claim.—Coll., E. D. Ingall, 1892. (275.) — with some iron pyrites and zinc blende in quartz and a little dolomite—argentiferous.—“ <i>Best</i> ” claim.—Coll., E. D. Ingall, 1892. (280.) <b>Zinc blende</b> in quartz.—“ <i>Slocan Star</i> ” claim.—Coll., E. D. Ingall, 1892. (281.) <b>Galena</b> —argentiferous.— do do do (282.) — do “ <i>Freddie Lee</i> ” claim.—Coll., E. D. Ingall, 1892. (289.) <b>Weathered rock matter</b> (ochre with galena).—“ <i>Freddie Lee</i> ” claim.—Coll., E. D. Ingall, 1892. (292.) <b>Galena</b> —argentiferous.—“ <i>Wellington</i> ” mine, two and a-half miles north-east of Bear Lake, Kaslo-Slocan road.—Coll., E. D. Ingall, 1892. (295.) <b>Weathered rock matter</b> .—“ <i>Wellington</i> ” mine.—Coll., E. D. Ingall, 1892. (296.)
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A further specimen (No. 383) from the Wellington mine is shown in Wall case No. 2.

F.—*Big Bend* region.

<b>Auriferous quartz</b> .—“ <i>Big Bend</i> ” claim, Big Bend, Columbia River. (5747.)
— “ <i>Homestead</i> ” claim, McCulloch Creek, Columbia River. (5748.)

G.—*From other claims in the West Kootanie district.*

<b>Galena</b> —argentiferous.—From about ten miles west of the summit of the Selkirk Range and within a mile and a half of the C. P. R. (5347.)
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## 3.—SOUTHERN INTERIOR.

A.—*Stump Lake, or Nicola Mines.*

<b>Galena</b> , zinc blende, iron and copper pyrites and grey copper (tetrahedrite) quartz—argentiferous.—“ <i>Star</i> ” claim.—Presented by Henderson, 1888. (5763.)
— zinc blende, iron pyrites and grey copper (tetrahedrite) in quartz—argentiferous.—“ <i>Joshua</i> ” claim.—Presented by Wm. Crail, 1888. (5764.)

ES—Continued.

Columbia—Continued.

T—Continued.

Continued.

Coll., E. D. Ingall, 1892. (235.)  
e " claim.—Coll., E. D. Ingall.

D. Ingall, 1892. (261.)

do (266.)

ed " claim.—Coll., E. D. Ingall.

rd " claim.—Coll., E. D. Ingall.

me Bird " claim.—Coll., E. D.

Ingall, 1892. (271.)

er ore.—" Dardanelles " claim.

(272.)

an " claim.—Coll., E. D. Ingall.

nde in quartz and a little dol-

claim.—Coll. E. D. Ingall.

Coll., E. D. Ingall, 1892. (281.)

do do (282.)

Coll., E. D. Ingall, 1892. (283.)

—" Freddie Lee " claim.—Coll.

two and a-half miles north east

road.—Coll., E. D. Ingall, 1892

me.—Coll. E. D. Ingall, 1892

ington mine is shown in Wall

ton.

end, Columbia River. (5747.)

reek, Columbia River. (5748.)

*Kootanie district.*

est of the summit of the Selkirk

half of the C. P. R. (5347.)

rior.

*la Mines.*

nd grey copper (tetrahedrite)

r " claim.—Presented by

opper (tetrahedrite) in quartz-

im.—Presented by Wm. Craib

## GOLD AND SILVER ORES—Continued.

### From the Province of British Columbia—Continued.

#### 3.—SOUTHERN INTERIOR—Continued.

##### 1.—Stump Lake, or Nicola Mines—Continued.

**Galena**, copper pyrites, zinc blende and iron pyrites in quartz—argentiferous.—" King William " claim.—Presented by Wm. Craib, 1888. (5765.)

— with copper and iron pyrites in quartz—argentiferous.—" Tubal Cain " claim.—Presented by Wm. Craib, 1888. (5766.)

— and copper pyrites in quartz—argentiferous.—" Planet " claim.—Coll., G. M. Dawson, 1888. (5767.)

— in quartz—argentiferous.—" M. v. B. -nolds " claim.—Coll., G. M. Dawson, 1888. (5768.)

— in quartz—argentiferous.—" Ardmore " claim.—Coll., G. M. Dawson, 1888. (5769.)

— iron pyrites and grey copper (tetrahedrite) in quartz—argentiferous.—" Jenny Long " claim.—Coll., G. M. Dawson, 1888. (5770.)

— iron pyrites and zinc blende in quartz—argentiferous.—" Zeila " claim.—Coll., G. M. Dawson, 1888. (5771.)

— and iron pyrites in quartz—argentiferous.—" British Empire " claim.—Coll., G. M. Dawson, 1888. (5772.)

Further specimens from the Stump Lake Mines are Nos. 5491, 5706-5709 in upright Wall-case 1.

##### From other claims in the Southern Interior.

**Quartz**, with galena and iron pyrites—auriferous and argentiferous.—" Silver Queen " claim, Jamieson Creek, North Thompson River.—Coll., G. M. Dawson, 1888. (5773.)

— with copper pyrites and a little galena—auriferous and argentiferous.—" Nevada " claim, Tulameen River.—Coll., G. M. Dawson, 1888. (5774.)

— with iron pyrites—probably auriferous and argentiferous.—" Union " claim, Tulameen River.—Coll., G. M. Dawson, 1888. (5861.)

**Auriferous quartz**.—" Bonanza " claim, Cayoosh Creek.—Coll., G. M. Dawson, 1890. (5862.)

— " Stanley " ledge, Cayoosh Creek.—Coll., G. M. Dawson, 1890. (5863.)

— " Bee " claim, Cayoosh Creek.—Coll., G. M. Dawson, 1890. (5864.)

— Monashee mine, tunnel C, head waters of Cherry Creek and Kettle River.—Coll., G. M. Dawson, 1890. (5865.)

— Rock Creek, Kettle River, Okanagan.—Coll., G. M. Dawson, 1888. (5711.)

**Galena**—argentiferous.—Rock Creek, Kettle River, Okanagan. (5731.)

**Auriferous quartz**.—Big Slide mine, bank of Fraser River, near Kelly Lake Creek.—Coll., G. M. Dawson, 1889. (5866.)

#### 4.—CARIBOO AND NORTHERN INTERIOR.

**Auriferous rock**.—Hixon Creek, Fraser River, north of Quesnel. (1223.)

**Galena**—argentiferous.—Sadou's ledge, Mosquito Creek, Cariboo. (4628.)

— do —" Arctic Circle " claim, Boulder Creek, Omineca.—Coll., G. M. Dawson, 1877. (3526.)

— argentiferous.—" Aendia " claim, south fork of McDame Creek, Cassiar. (5562.)

Table-case  
70.—  
Continued.

## SILVER ORES.

**Ores of Silver from the Thunder Bay Mining Region, Lake Superior, Ontario.**

- Table-case 71. **Native Silver.**—Singleton mine, township of McIntyre, O.—Coll., R. Bell, 1869.—Cambrian, C 1. (192.)
- Thunder Bay mine, township of McGregor, O.—Coll., R. Bell, 1869.—Cambrian, C 1. (210.)
- with niccolite.—“3 A” mine, township of McGregor, O.—Presented by Judge Van Norman, 1875.—Archean, A-B. (972.)
- silver glance and zinc blende.—Shuniah or Duncan mine, township of McIntyre, O.—Coll., R. Bell, 1875.—Cambrian, C 1. (216.)
- silver glance, galena and zinc blende.—Silver Islet, Lake Superior, O.—Coll., Thomas Macfarlane, 1865.—Cambrian, C 1. (343.)
- silver glance and zinc blende.—Prince location, Spar Island, Lake Superior, O.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (5995.)
- Silver glance.**—Pine Bay, township of Crooks, O.—Coll., R. Bell, 1869.—Cambrian, C 1. (202.)
- with zinc blende.—Beck or Silver Harbour mine, township of McGregor, O.—Coll., R. Bell, 1872.—Cambrian, C 1. (219.)
- Galena with zinc blende.**—Pie Island, Lake Superior, O.—Coll., A. R. C. Selwyn, 1882.—Cambrian, C 1. (193.)
- Copper glance.**—Spar Island, Lake Superior, O. (5997.)
- Silver minerals** from the Porenpine (Twin Cities) mine, township of Gillies, O.—Cambrian, C 1.

- (1) Silver glance. (5289.)
- (2) do (5290.)
- (3) do with iron pyrites. (5291.)
- (4) do (5292.)
- (5) do (5293.)
- (6) do with native silver. (5294.)
- (7) do do do (5295.)
- (8) do with zinc blende. (5296.)

NOTE.—Of the foregoing Nos. 5289—5294 were presented by Mr. T. A. Keefer (1886), No. 5295 was collected by Mr. W. McInnes (1891) and No. 5296 by Mr. E. D. Ingall (1886).

**Silver minerals** from the Rabbit Mountain mine, location T 39, township of Paipouge, O.—Cambrian, C 1.

- (1) Silver glance. (5297.)
- (2) do (5298.)
- (3) do (5299.)
- (4) do (5300.)
- (5) do (5301.)
- (6) do (5302.)
- (7) Native silver. (5303.)
- (8) do (5304.)
- (9) Silver glance. (5305.)
- (10) do with zinc blende. (5306.)
- (11) Native silver with silver glance. (5307.)

NOTE.—Of the foregoing Nos. 5297—5304 were presented by Mr. T. A. Keefer (1886), No. 5305 by Mr. A. L. Russell (1886) and Nos. 5306 and 5307 by General Wild (1886).

## SILVER ORES—Continued.

## From the Thunder Bay Mining Region—Continued.

**Silver minerals** from the Silver Mountain mine, mining location R 56, township of Lybster, O.—Cambrian, C 1.

- (1) Native silver with silver glance. (5373.)
- (2) do do do (5374.)
- (3) Silver glance. (5375.)
- (4) Native silver. (5376.)

Table-case  
71.—  
Continued

NOTE.—Of the foregoing Nos., 5373—5375 were presented by Mr. A. L. Russell (1886) and No. 5376 by Mr. W. H. Furlonge (1885).

**Native silver** with zinc blende.—Silver Hill claim, near Silver Mountain, mining location R 70, township of Lybster, O.—Presented by W. H. Furlonge, 1885.—Cambrian, C 1. (5378.)

**Galena** with zinc blende.—Badger mine, township of Gillies, O.—Coll., W. McInnes, 1891.—Cambrian, C 1. (5414.)

**Silver minerals** and ore from the Beaver mine, mining location T 97, township of O'Connor, O.—Cambrian, C 1.

- (1) Silver glance with zinc blende. (6535.)
- (2) Native silver, silver glance and zinc blende. (6536.)
- (3) Silver glance. (6537.)
- (4) do with iron pyrites. (6538.)
- (5) Zinc blende with silver glance. (6539.)
- (6) Galena, zinc blende and iron pyrites. (6540.)
- (7) Silver glance. (6541.)
- (8) do native silver and zinc blende. (6542.)
- (9) do with iron pyrites. (6543.)

NOTE.—Of the foregoing Nos. 6535, 6536 were presented by Mr. Kirkland (1885), No. 6537 by Mr. W. H. Furlonge (1885), Nos. 6538—6541 by Mr. T. A. Keefer (1888) and Nos. 6542, 6543 were collected by Mr. W. McInnes (1891).

**Native silver**.—3 A mine, township of McGregor, district of Thunder Bay, O.—Presented by Judge Van Norman, 1875.—Huronian, B. (335.)

— silver glance and zinc blende.—Silver Mountain, township of Lybster, district of Thunder Bay, O.—Presented by Oliver Dannaix, 1884.—Cambrian, C 1. (4911.)

— and zinc blende.—Mining location R 238, north of Atik Lake, west of Whitefish Lake, district of Thunder Bay, O.—Presented by W. A. Allan, 1887.—Cambrian, C 1. (5450.)

**Silver glance** (argentite).—Jarvis Island, Lake Superior, district of Thunder Bay, O.—Coll., R. Bell, 1875.—Cambrian, C 1. (337.)

— Rabbit Mountain, district of Thunder Bay, O.—Coll., A. R. C. Selwyn, 1882.—Cambrian, C 1. (3542.)

— Rabbit Mountain mine, location 39 T, township of Paipoonge, district of Thunder Bay, O.—Presented by General Wild, 1887.—Cambrian, C 1. (5415.)

**Sylvanite**, with silver glance, galena and copper pyrites.—Huronian mine, lot H 1, township of Moss, district of Thunder Bay, O.—Coll., A. R. C. Selwyn, 1883.—Huronian, B. (186.)

**Vitreous copper ore** (chalcocite) with native silver.—Sper Island, Lake Superior, district of Thunder Bay, O.—Cambrian, C 1. (344.)

**Zinc blende** (sphalerite), with galena—argentiferous.—From hanging-wall of vein, mining location C 45, near Little Pic River, district of Thunder Bay, O.—Coll., R. Bell, 1875.—Huronian, B. (185.)

Upright  
wall-case  
2.

## SILVER ORES—Continued.

## From the Thunder Bay Mining Region—Continued.

Upright  
wall-case  
2.—  
Continued.

**Zinc blende**—Rabbit Mountain, location 39 T, township of Paipoonge, district of Thunder Bay, O.—Coll., E. D. Ingall, 1886.—Cambrian, C 1. (5994.)

Specimens of silver-lead ore from this region are also shown in this case—See further on under the heading, "Silver-lead and lead ore," Nos. 191, 194, 201, 255, 339 and 5643.

The following specimens of silver ore are from the provinces of British Columbia and Quebec.

**Copper pyrites** (chalcopyrite), galena, native silver and silver glance.—Suffield mine, lot 3, range XI. of Ascot, Sherbrooke county, Q.—Pre-Cambrian, B? (331.)

— galena and silver glance.—Suffield mine, lot 3, range XI. of Ascot, Sherbrooke county, Q.—Pre-Cambrian, B? (332.)

— with silver glance.—Suffield mine, lot 3, range XI. of Ascot, Sherbrooke county, Q.—Pre-Cambrian, B? (333.)

**Native silver**—Wellington mine, two and a-half miles north-east of Bear Lake. Kaslo-Slocan road, West Kootanie district, B.C.—Presented by Hector McRae, 1892. (383.)

**Grey copper** (tetrahedrite), galena and zinc blende—argentiferous.—Cherry Creek, Shuswap Lake, B.C.—Coll., G. M. Dawson, 1877. (367.)

**Argentiferous veinstone**.—Eureka mine, Fort Hope, Fraser River, B.C.—Coll., J. Richardson, 1875. (973.)

— Victoria mine, Fort Hope, Fraser River, B.C.—Coll., J. Richardson, 1875. (974.)

## SILVER-LEAD AND LEAD ORE.

**Galena** (galenite)—argentiferous.—Nigadoo mine, Nigadoo River, Gloucester county, N.B.—Coll., R. W. Ellis, 1881.—Silurian, E. (3620.)

— with iron pyrites.—Mill Stream, parish of Beresford, about fifteen miles from Bathurst, Gloucester county, N.B.—Cambrian-Silurian, D. (4775.)

— Cap Bon Ami, Gaspé county, Q.—Coll., R. Bell, 1862.—Silurian, E. b. (309.)

— Indian Cove, Gaspé Bay, Gaspé county, Q.—Coll., R. Bell, 1862.—Devonian, F. (310.)

— Lot 32, range V. of Aeton, Bagot county, Q.—Coll., J. Richardson.—Cambrian, C. (312.)

— Lot 51, range XXI. of Upton, Bagot county, Q.—Coll., J. Richardson.—Cambrian, C. (323.)

— One mile west of St. Fabien, Rimouski county, Q.—Coll., Richardson, 1878.—Cambrian, C. (189.)

— Cook's Corner, St. Armand, Missisquoi county, Q.—Cambrian-Silurian, D. (315.)

— with iron pyrites, copper pyrites and grey copper—argentiferous.—From "main vein," lot 1, range XV. of Risborough, Beauce county, Q.—Coll., R. W. Ellis, 1885.—Cambrian, C. (513.)

— with iron pyrites—argentiferous.—From "cross vein," lot 1, range XV. of Risborough, Beauce county, Q.—Coll., R. W. Ellis, 1885.—Cambrian, C. (5133.)



Continued.

## Region—Continued.

township of Paipoonge, district of  
D. Ingall, 1886.—Cambrian, C 1.

are also shown in this  
Silver-lead and lead ore.

are from the provinces of

ver and silver glance.—Suffield  
t, Sherbrooke county, Q.—Pre-

mine, lot 3, range XI. of Ascot,  
Cambrian, B? (332.)

lot 3, range XI. of Ascot, Sher-  
broian, B? (338.)

f miles north-east of Bear Lake,  
stamie district, B.C.—Presented  
(33.)

blende—argenteriferous.—Cherry  
—Coll., G. M. Dawson, 1877.

Hope, Fraser River, B.C.—Coll.

River, B.C.—Coll., J. Richard

## LEAD ORE.

ne, Nigadoo River, Gloucester  
ells, 1881.—Silurian, E. (362.)

rish of Beresford, about fifteen  
cester county, N.B.—Cambrian

Coll., R. Bell, 1862.—Silurian

nty, Q.—Coll., R. Bell, 1862.

county, Q.—Coll., J. Richard

at county, Q.—Coll., J. Richard

Rimouski county, Q.—Coll.,  
n, C. (189.)

Missisquoi county, Q.—Cambrian

and grey copper—argenteriferous.  
range XV. of Rishorough, Beauce  
ells, 1885.—Cambrian, C. (512.)

From "cross vein," lot 1, ran-  
county, Q.—Coll., R. W. E.

)

## SILVER-LEAD AND LEAD ORE—Continued.

**Galena** (galenite)—with iron pyrites—argenteriferous.—From "small vein," lot 1,  
range XV. of Rishorough, Beauce county, Q.—Coll., R. W.  
Ells, 1885.—Cambrian, C. (5134.)

— Lots 20 and 21, range IV. of Buckingham, Ottawa county, Q.—  
Coll., H. G. Vennor, 1875.—Laurentian, A. (313.)

— argenteriferous.—Wright's mine, Block A and B, range I. of Duhamel,  
east shore of Lake Temiscamingue, Pontiac county, Q.—  
Huronian, B. (190.)

— argenteriferous.—South side of Little Whale River, east coast of  
Hudson Bay.—Coll., R. Bell, 1877.—Cambrian, C. (1202.)

— argenteriferous.—North shore of Lake Temiscamingue, district of  
Nipissing, O.—Presented by E. V. Wright, 1883. (366.)

— Fitzroy lead mine, lot 25, range VII. of Fitzroy, Carleton county,  
O.—Coll., F. D. Adams, 1885.—Laurentian, A. (2583.)

— Ramsay lead mine, lot 3, range VI. of Ramsay, Lanark county, O.  
—Coll., H. G. Vennor.—Cambrian, C 2. (321.)

— From the property of Dr. Lynch, range IV. of Ramsay, Lanark  
county, O.—Presented by W. H. Wylie, 1833.—Cambrian,  
C 2. (325.)

— Lot 1, range VIII. of Lansdowne, Leeds county.—Coll., A. Murray,  
1851.—Laurentian, A. (316.)

— Lot 1, range III. of Limerick, Hastings county, O.—Coll., R. Bell,  
1875.—Laurentian, A. (188.)

— Tudor, Hastings county, O.—Coll., H. G. Vennor, 1868.—Lauren-  
tian, A. (319.)

— Frontenac lead mine, south half of lot 16, range IX. of Loughborough,  
Frontenac county, O.—Laurentian, A. (320.)

— Lot 19, range VII. of Bedford, Frontenac county, O.—Coll., H. G.  
Vennor, 1868.—Laurentian, A. (322.)

— argenteriferous.—Lot 12, range VIII. of Barrie, Frontenac county, O.  
—Laurentian, A. (349.)

— Galway, Peterborough county, O.—Laurentian, A. (328.)

— with zinc blende—argenteriferous.—Cascade mine, Garden River,  
near Sault Ste. Marie, district of Algoma, O.—Coll., T. C.  
Weston, 1882.—Huronian, B. (238.)

— argenteriferous.—Victoria mine, Garden River, near Sault Ste.  
Marie, district of Algoma, O.—Coll., R. Bell, 1876.—  
Huronian, B. (358.)

— Pointe aux Mines, Lake Superior, district of Algoma, O.—Coll.,  
W. E. Logan, 1846.—Cambrian, C 1. (342.)

— with zinc blende—argenteriferous.—From foot-wall of vein, mining  
location C 45, near Little Pic River, Lake Superior, district  
of Thunder Bay, O.—Coll., R. Bell, 1875.—Huronian, B.  
(191.)

— argenteriferous.—From three miles west of the mouth of Little Pic  
River, Lake Superior, district of Thunder Bay, O.—Coll., R.  
Bell, 1875.—Huronian, B. (183.)

— Lot 10, range VI. of Dorion, district of Thunder Bay, O.—Coll., W.  
E. Logan, 1846.—Cambrian, C 1. (187.)

— Granite Island, Black Bay, Lake Superior, district of Thunder Bay,  
O.—Coll., W. E. Logan, 1846.—Archean, A-E. (314.)

— argenteriferous.—Island No. 2 in Silver Lake, township of McTavish,  
district of Thunder Bay, O.—Coll., R. Bell, 1875.—Cambrian,  
C 1. (181.)

— with copper pyrites—auriferous and argenteriferous.—Enterprise mine,  
township of McTavish, district of Thunder Bay, O.—Coll., R.  
Bell, 1875.—Cambrian, C 1. (339.)

Upright  
wall-case  
2.—  
Continued.

## SILVER-LEAD AND LEAD ORE—Continued.

- Upright wall-case 2.—  
Continued.
- Galena** (galenite)—argentiferous.—Silver Islet, Lake Superior, district of Thunder Bay, O.—Coll., A. R. C. Selwyn, 1882.—Cambrian, C. I. (194.)
- with zinc blende—argentiferous.—Average sample of ore from vein, Silver Islet, Lake Superior, district of Thunder Bay, O.—Coll., A. R. C. Selwyn, 1882.—Cambrian, C. I. (201.)
- Woods' location, township of Sibley, district of Thunder Bay, O.—Coll., W. E. Logan, 1846.—Cambrian, C. I. (311.)
- with zinc blende—argentiferous.—Pie Island (Dawson) mine, Pie Island, Lake Superior, district of Thunder Bay, O.—Coll., R. Bell, 1875.—Cambrian, C. I. (255.)
- with zinc blende and native silver.—Beaver mine, location 97 T, township of O'Connor, district of Thunder Bay, O.—Presented by T. A. Keefer, 1888.—Cambrian, C. I. (5643.)
- with copper pyrites—argentiferous.—Sterling mine, Kokesalla River, Cowichan, Vancouver Island, B.C.—Coll., G. M. Dawson, 1881. (242.)
- Calcite**, quartz, fluorite and zinc blende.—Beaver mine, location 97 T, township of O'Connor, district of Thunder Bay, O.—Presented by T. A. Keefer, 1888.—Cambrian, C. (5639.)
- zinc blende and quartz.—Rabbit Mountain mine, location 39 T, township of Paipoonge, district of Thunder Bay, O.—Presented by T. A. Keefer, 1888.—Cambrian, C. (5640.)
- Fluorite** and quartz.—Beaver mine, location 97 T, township of O'Connor, district of Thunder Bay, O.—Presented by T. A. Keefer, 1888.—Cambrian, C. (5644.)

## SPECIMENS ILLUSTRATING THE DISTRIBUTION OF SILVER-LEAD AND LEAD ORE.

- Upright table-case 32.
- Galena**.—From a mine on Mill stream, Beresford, Gloucester county, N.B.—Presented by W. R. Byrne, 1890.—Cambro-Silurian, D. (5592.)
- Nigadoo mine, Nigadoo River, Gloucester county, N.B.—Coll., R. W. Ellis, 1881.—Silurian, E. (182.)
- Indian Cove, Gaspé county, Q.—Coll., R. Bell, 1862.—Devonian, F. (3602.)
- Cap Bon Ami, Gaspé county, Q.—Coll., R. Bell, 1862.—Silurian, E. G. (3605.)
- Percé, Gaspé county, Q.—Coll., W. E. Logan, 1843.—Devonian, F. (3616.)
- Grande Grève, Gaspé county, Q.—Coll., H. P. Brumell, 1882.—Devonian, F. (3617.)
- One mile west of St. Fabien, Rimouski county, Q.—Coll., J. Richardson, 1878.—Cambrian, C. (3608.)
- Cook's Corner, St. Armand, Missisquoi county, Q.—Coll., J. Richardson.—Cambro-Silurian, D. (3606.)
- Brome, Brome county, Q.—Pre-Cambrian, B? (3614.)
- Owls Head, lot 8, range XI. of Potton, Brome county, Q.—Coll., W. E. Logan.—Pre-Cambrian, B? (5522.)
- Lot 9, range IX. of Ascot, Sherbrooke county, Q.—Coll., J. Richardson.—Pre-Cambrian, B? (355.)
- with copper pyrites.—Lot 51, range XXI. of Upton, Bagot county, Q.—Coll., W. E. Logan, 1847.—Cambrian, C. (3529.)
- Lot 19, range V. of Milton, Shefford county, Q.—Coll., J. Richardson, 1863.—Cambrian, C. (3525.)

## RE—Continued.

Lake Superior, district of R. C. Selwyn, 1882.—Cambrian, C 1. (201.)

Sample of ore from vein, district of Thunder Bay, O.—Cambrian, C 1. (201.)

District of Thunder Bay, O.—Cambrian, C 1. (311.)

Island (Dawson) mine, Picramnia, O.—Coll., (255.)

Beaver mine, location 97 T, Thunder Bay, O.—Presented by T. A. Keefer, 1888.—Cambrian, C 1. (5643.)

Merling mine, Kokesaila River, B.C.—Coll., G. M. Dawson.

Mine, location 97 T, township of Thunder Bay, O.—Presented by T. A. Keefer, 1888.—Cambrian, C 1. (5639.)

Mountain mine, location 39 T, township of Thunder Bay, O.—Presented by T. A. Keefer, 1888.—Cambrian, C 1. (5640.)

Township of O'Connor, district of Thunder Bay, O.—Presented by T. A. Keefer, 1888.—Cambrian, C 1. (5641.)

## DISTRIBUTION OF SILVER-LEAD AND LEAD ORE.

Gloucester county, N.B.—1890.—Cambro-Silurian, D.

Gloucester county, N.B.—Coll., R. Bell, 1862.—Devonian, F.

Gloucester county, N.B.—Coll., R. Bell, 1862.—Silurian, G.

Logan, 1843.—Devonian, F.

Coll., II, P. Brumell, 1882.—Cambrian, C 1.

County, Q.—Coll., J. Richard, 1882.—Cambrian, C 1.

County, Q.—Coll., J. Richard, 1882.—Cambrian, C 1. (3606.)

County, Q.—Coll., J. Richard, 1882.—Cambrian, C 1. (3614.)

County, Q.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (5522.)

County, Q.—Coll., J. Richard, 1882.—Cambrian, C 1. (3615.)

County, Q.—Coll., J. Richard, 1882.—Cambrian, C 1. (3616.)

County, Q.—Coll., J. Richard, 1882.—Cambrian, C 1. (3617.)

County, Q.—Coll., J. Richard, 1882.—Cambrian, C 1. (3618.)

## SPECIMENS ILLUSTRATING THE DISTRIBUTION OF SILVER-LEAD AND LEAD ORE—Continued.

Galena.—Lots 20 and 21, range IV. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1875.—Laurentian, A. (3519.)

Wright's mine, Block A & B, range I. of Dulamel, Pontiac county, Q.—Huronian, B. (3609.)

South side of entrance to Richmond Gulf, Hudson Bay.—Coll., R. Bell, 1877.—Cambrian, C. (3517.)

Little Whale River, east coast of Hudson Bay.—Coll., R. Bell, 1877.—Cambrian, C. (3530.)

Fitzroy lead mine, lot 25, range VII. of Fitzroy, Carleton county, O.—Coll., F. D. Adams, 1885.—Laurentian, A. (5050.)

Ramsay lead mine, lot 3, range VI. of Ramsay, Lanark county, O.—Coll., R. Oatey, 1857.—Cambrian, C 2. (3566.)

Lot 16, range III. of Dalhousie, Lanark county, O.—Laurentian, A. (5454.)

Lot 8, range II. of Lansdowne, Leeds county, O.—Coll., A. Murray, 1851.—Laurentian, A. (3528.)

Lot 17, range IX. of Storrington, Frontenac county, O.—Coll., R. Bell, 1875.—Laurentian, A. (3515.)

Lot 21, range VIII. of Bedford, Frontenac county, O.—Laurentian, A. (318.)

Lot 9, range IX. of Bedford, Frontenac county, O.—Laurentian, A. (1758.)

Lot 18, range VIII. of Bedford, Frontenac county, O.—Coll., A. Murray, 1852.—Laurentian, A. (3613.)

with zinc blende, in dolomite.—Tudor, Hastings county, O.—Coll., H. G. Vennor, 1868. (3520.)

Lot 28, range B. of Tudor, Hastings county, O.—Coll., T. Macfarlane, 1866.—Laurentian, A. (3618.)

Lots 28 and 29, range XIV. of Tudor, Hastings county, O.—Coll., H. G. Vennor, 1868.—Laurentian, A. (3521.)

Lot 1, range III. of Limerick, Hastings county, O.—Coll., R. Bell, 1875.—Laurentian, A. (3600.)

Lot 3, range I. of Snider, district of Algoma, O.—Huronian, B. (5453.)

with copper pyrites and zinc blende.—Victoria mine, Garden River, near Sault Ste. Marie, district of Algoma, O.—Coll., R. Bell, 1876.—Huronian, B. (3524.)

Victoria mine, Garden River, near Sault Ste. Marie, district of Algoma, O.—Coll., R. Bell, 1876.—Huronian, B. (3527.)

Victoria mine, Garden River, near Sault Ste. Marie, district of Algoma, O.—Coll., T. C. Weston, 1882.—Huronian, B. (5804.)

Pointe aux Mines, Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (3603.)

Michipicoten Island, Lake Superior, district of Thunder Bay, O.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (3610.)

Granite Island, Black Bay, Lake Superior, district of Thunder Bay, O.—Archean, A B. (3604.)

Island No. 2 in Silver Lake, township of MacTavish, district of Thunder Bay, O.—Coll., R. Bell, 1875.—Cambrian, C 1. (3615.)

Lot 8, Silver Lake mining location, township of MacTavish, district of Thunder Bay, O.—Coll., R. Bell, 1875.—Cambrian, C 1. (3516.)

Upright table-case 32.—Continued.

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF SILVER-LEAD AND LEAD ORE—*Continued.*

- Upright table-case 32.—  
*Continued.*
- Galena.**—with zinc blende.—Near Little Pic River, district of Thunder Bay, O.—Coll., R. Bell, 1875.—Huronian, B. (3612.)
- Boulder Island, Big Stone Bay, Lake of the Woods, district of Rainy River, O.—Coll., R. Bell, 1878.—Huronian, B. (3523.)
- zinc blend and iron pyrites.—Otter-tail Creek, seven miles west of Field station, C.P.R., Rocky Mountains, B.C.—Coll., R. G. McConnell, 1886. (5397.)
- Monarch claim, Mount Stephen, near Field station, C.P.R., Rocky Mountains, B.C.—Coll., R. G. McConnell, 1886. (5802.)
- Cornucopia claim, Mount Stephen, near Field station, C.P.R., Rocky Mountains, B.C.—Coll., R. G. McConnell, 1886. (5803.)

Further specimens of silver and lead-ores will be found in upright wall-case 1, and separate table-cases 47, 48, 70 and 71.

## ANTIMONY ORES.

- Upright wing-case 3.
- Native antimony.**—Lot 28, range I, of South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882.—Pre-Cambrian, B? (350.)
- Antimony glance** (stibnite).—Lake George, parish of Prince William, York county, N.B.—Lake George Mining Company.—Coll., W. Broad, 1880.—Cambro-Silurian, D. (326.)
- Lake George, parish of Prince William, York county, N.B.—Brunswick Mining Company.—Coll., W. Broad, 1880.—Cambro-Silurian, D. (327.)
- Lake George, parish of Prince William, York county, N.B.—Hilbard Mining Company.—Coll., W. Broad, 1880.—Cambro-Silurian, D. (352.)
- West Gore, Hants county, N.S.—Presented by A. G. Maenaughton, 1888.—Cambrian, C. (5552.)
- Lot 28, range I, of South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882.—Pre-Cambrian, B? (351.)

Specimens illustrating the distribution of antimony ores are shown in upright table-case 25.

## NICKEL ORES.

- Magnetic pyrites** (pyrrhotite)—nickeliferous.—Todd's mine, about three miles north of St. Stephen, Charlotte county, N.B.—Coll., H. P. Brumell, 1891. (354.)
- Millerite** with chrome garnet in calcite.—Orford nickel mine, lot 6, range XII, of Orford, Sherbrooke county, Q. (647.)
- Magnetic pyrites** (pyrrhotite)—nickeliferous, with copper pyrites (chalcopyrite).—Worthington mine, lot 2, range II, of Drury, district of Algoma, O.—Coll., A. E. Barlow, 1891.—Huronian, B. (2480.)
- Magnetic pyrites** (pyrrhotite)—nickeliferous.—O'Connor's claim, lot 11, range V, of Lorne, district of Algoma, O.—Coll., A. E. Barlow, 1890.—Huronian, B. (4921.)
- Copper pyrites** (chalcopyrite), with magnetic pyrites (pyrrhotite)—nickeliferous.—Copper Cliff mine, lot 12, range II, of McKim, district of Nipissing, O.—Huronian, B. (5960.) and the four following exhibits were presented by J. L. Evans, manager of the Canadian Copper Company, O. (5960.)

**DISTRIBUTION OF  
ORE—Continued.**

er, district of Thunder Bay, O.  
ian, B. (3612.)  
ke of the Woods, district of  
l. 1878.—Huronian, B. (5923.)  
il Creek, seven miles west of  
Mountains, B.C.—Coll., R. G.  
near Field station, C.P.E.,  
R. G. McConnell, 1886. (5802.)  
near Field station, C.P.R.,  
R. G. McConnell, 1886. (5803.)  
will be found in upright  
70 and 71.

S.

m, Wolfe county, Q.—Coll., C.  
abrian, B? (350.)  
ish of Prince William, York  
Mining Company.—Coll., W.  
t, D. (326.)  
liam, York county, N.B.—  
—Coll., W. Broad, 1880.—  
, York county, N.B.—Hilbard  
Broad, 1880.—Cambro-Silu-  
represented by A. G. Macnaughton.  
ife county, Q.—Coll., C. W.  
an, B? (351.)  
antimony ores are shown

nickel mine, lot 6, range XII.  
Q. (647.)  
with copper pyrites (chalcop-  
yrite), range II, of Drury, dis-  
trict of Algoma, O.—Coll.,  
E. Barlow, 1891.—Huronian.  
O'Connor's claim, lot 11, range  
XII, district of Algoma, O.—Coll.,  
A. E. Barlow.  
pyrites (pyrrhotite)—nickeliferous  
range II, of McKim, district of  
Algoma, O., and the four following  
ranches, Evans, manager of the  
ranch, (5960.)

**NICKEL ORES—Continued.**

- Magnetic pyrites** (pyrrhotite)—nickeliferous.—Copper Cliff mine, lot 12, range  
II, of McKim, district of Nipissing, O.—Huronian, B. (5961.)  
**Magnetic pyrites** with some copper pyrites (chalcopyrite).—Evans' mine, lot 1,  
range I, of Snider, district of Algoma, O.—Huronian B. (5962.)  
**Mixed ore** of the Copper Cliff and Evans mines (Nos. 5959–5962), after calcina-  
tion. (5963.)  
**Coarse metal** or matte obtained from calcined ore (No. 5963). (5964.)  
**Nickel ore**.—Wallace mine, about one mile west of the mouth of Whitefish  
River, Lake Huron, district of Algoma, O.—Coll., A. Murray,  
1848.—Huronian, B. (348.)  
**Magnetic pyrites** (pyrrhotite) with copper pyrites (chalcopyrite).—One mile  
from Jackfish Bay, Lake Superior, district of Thunder Bay,  
O.—Huronian, B. (334.)

Upright  
wing-case  
3.—  
Continued.

Specimens illustrating the distribution of nickel ores are shown in  
upright table-cases Nos. 25 and 26.

**ZINC ORE.**

- Zinc blende** (sphalerite).—Lot 10, range IV, of Calumet, Pontiac county, Q.  
—Coll., W. H. Murphy, 1888.—Laurentian, A. (5455.)  
— Lot 18, range I, of Elzevir, Hastings, county, O.—Coll., H. G. Ven-  
nor, 1872.—Laurentian, A. (361.)  
— Pointe aux Mines, Lake Superior, district of Algoma, O.—Coll., W.  
E. Logan, 1846.—Cambrian, C 1. (363.)  
— Zenith zinc mine, about eleven miles north-east of Rosport (formerly  
McKay's Harbour), P. R., district of Thunder Bay, O.—  
Presented by T. A. Keefe, 1885.—Huronian, B. (5371.)  
— Kaministiquia River, district of Thunder Bay, O.—Coll., A. Murray,  
1846.—Cambrian, C 1. (360.)

Specimens illustrating the distribution of zinc ore are shown in  
upright table-case 26.

**BISMUTH ORE.**

Specimens of this ore are shown in upright table-case 25.

**COBALT ORE.**

A specimen of cobaltic mispickel (Danaite) is shown in the system-  
atic collection of minerals, table-case 51.

**MERCURY ORE.**

Specimens of native mercury and cinnabar are shown in the system-  
atic collection of minerals. The former in table-case 49, the latter in table-  
case 50 and upright table-case 37.

## PLATINUM.

Upright  
wing-case  
3.—  
*Continued.*

Specimens of native platinum and platinum arsenide are shown in the systematic collection of minerals. The former in table-case 49, the latter in table-case 51.

The following, for which space could not be found in a more appropriate place, are also shown in this case.

## ARSENIC ORE.

**Arsenical pyrites** (arsenopyrite, mispickel).—Gatling mine, lot 10, range VIII. of Marmora, Hastings county, O.—Coll., R. G. Vennor, 1871.—Archean, A. B. (364.)

Specimens illustrating the distribution of arsenical pyrites are shown in upright table-case 25, and a specimen of native arsenic will be found in the systematic collection of minerals, table-case 49.

## CHROMIUM ORE.

**Chromic iron ore** (chromite).—Mount Albert, Shickshock Mountains, Gaspe county, Q.—Coll., J. Richardson, 1858.—Pre-Cambrian, A. B. (539.)

- Lot 1, range X. of Leeds, Megantic county, Q.—Presented by Dr. Reed, 1885.—Pre-Cambrian, B? (5234.)
- Lot 9, range X. of Cleveland, Richmond county, Q.—Coll., J. Richardson.—Pre-Cambrian, B? (5456.)
- Lot 23, range VI. of Bolton, Brome county, Q.—Coll., J. Richardson, 1865.—Pre-Cambrian, B? (472.)
- Lot 40, range II. of South Ham, Wolfe county, Q.—Coll., J. Richardson, 1865.—Cambrian, C. (485.)

Specimens illustrating the distribution of this ore are shown in upright table-case 31.

## MOLYBDENUM ORE.

**Molybdenite**.—Harvey Hill, Leeds, Megantic county, Q.—Coll., C. W. Wilimott, 1882.—Pre-Cambrian, B? (696.)

- Lot 7, range IX. of Ross, Renfrew county, O.—Coll., C. W. Wilimott, 1883.—Laurentian, A. (359.)
- Lot 22, range II. of Ross, Renfrew county, O.—Coll., C. W. Wilimott, 1883.—Laurentian, A. (440.)

Specimens illustrating the distribution of this ore are shown in upright table-case 31.

## SULPHUR ORE.

**Iron pyrites** (pyrite) and copper pyrites (chalcopyrite).—Lot 22, range II. of Garthby, Wolfe county, Q.—Coll., J. Richardson, 1858.—Pre-Cambrian, B? (368.)

**SULPHUR ORE—Continued.**

- Iron pyrites.**—Lot 19, range II. of Elizabethtown, Leeds county, O.—Laurentian, A. (369.)
- Lot 5, range IV. of Darling, Lanark county, O.—Presented by W. H. Wylie, 1886.—Laurentian, A. (330.)
- North-west shore of Hudson Bay, south of Chesterfield Inlet, district of Keewatin.—Coll., R. Bell, 1885. (5343.)
- From the head of Eekstall Inlet, south of Port Essington, Skeena River, B.C. (5075.)

Upright  
wing-case  
3.—  
Continued.

Specimens illustrating the distribution of ore of sulphur are shown in upright table-case 31.

**SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
ORES OF ANTIMONY, ARSENIC, BISMUTH,  
NICKEL AND ZINC.**

**Ores of Antimony.**

- Native antimony.**—Parish of Prince William, York county, N.B.—Coll., L. W. Bailey, 1883.—Cambro-Silurian, D. (3748.)
- Antimony glance** (stibnite).—Lake George, parish of Prince William, York county, N.B., Brunswick Mining Company.—Coll., W. Broad, 1880.—Cambro-Silurian, D. (3624.)
- Lake George, parish of Prince William, York county, N.B., Hubbard Mining Company.—Coll., W. Broad, 1880.—Cambro-Silurian, D. (3625.)
- Lake George, parish of Prince William, York county, N.B., Lake George Mining Company.—Coll., W. Broad, 1880.—Cambro-Silurian, D. (3626.)
- Lot 28, range I. of South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882.—Pre-Cambrian, B? (3627.)
- Three miles north-west of the north end of Echo Lake, district of Algoma, O.—Coll., R. Bell, 1876.—Huronian, B. (3628.)

Upright  
table-case  
25.

**Kermesite, valentinite, scarnmontite and stibnite.**—Lot 28, range I. of South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882.—Pre-Cambrian, B? (3621.)

**Native antimony, with kermesite and valentinite.**—Lot 28, range I. of South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882.—Pre-Cambrian, B? (3622.)

**Native antimony with stibnite, kermesite and valentinite.**—Lot 28, range I. of South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882.—Pre-Cambrian, B? (3623.)

**Valentinite and kermesite.**—Lot 28, range I. of South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882.—Pre-Cambrian, B? (3586.)

See also specimens contained in upright wing-case 3.

**Ore of Arsenic.**

- Arsenical pyrites** (arsenopyrite).—Montague, Halifax county, N.S.—Coll., A. R. C. Schwyn, 1870.—Cambrian, C 1. (1313.)
- Ascot, Sherbrooke county, Q.—Coll., J. Richardson.—Pre-Cambrian, B? (1885.)
- Gillen mine, lot 6, range VIII. of Marmora, Hastings county, O.—Coll., H. G. Vennor, 1871.—Archean, A. B. (365.)

See also specimens contained in upright wing-case 3.

PLATE I. ILLUSTRATING THE DISTRIBUTION OF  
ORES OF ANTIMONY, ETC.—Continued.

Ore of Bismuth.

- Upright  
table-case  
25.  
Continued.
- Bismuth glance** (bismuthinite).—Lepreau, Charlotte county, N.B.—Pre-Cambrian, A. B. (290.)  
— Lot 34, range III. of Tudor, Hastings county, O.—Coll., H. C. Vennor, 1875.—Laurentian, A. (345.)  
— McKenzie River, west of the C.P.R. crossing, district of Thunder Bay, O.—Coll., A. R. C. Selwyn, 1885.—Huronian, B. (5047.)

Ores of Nickel.

- Copper pyrites**, with magnetic pyrites—nickeliferous.—L'Etete, Charlotte county, N.B.—Pre-Cambrian, A. B. (4892.)  
**Magnetic pyrites**—nickeliferous.—Ganong's vein, Milltown, St. Stephen, Charlotte county, N.B.—Coll., H. P. Brunell, 1891. (4939.)  
— Three miles north of St. Stephen, Charlotte county, N.B. (6528.)  
**Millerite** with chrome garnet in calcite.—Lot 6, range XII. of Orford, Shebrooke county, Q.—Pre-Cambrian, B? (5602.)  
**Iron pyrites**, with magnetic pyrites—nickeliferous.—Lots 27 and 28, range VIII of Clarendon, Pontiac county, Q.—Laurentian, A. (5965.)  
**Magnetic pyrites**—nickeliferous, with copper pyrites.—Murray mine, lot II range V. of McKim, district of Nipissing, O.—Coll., A. E. Barlow, 1891.—Huronian, B. (4644.)  
**Copper pyrites**, with magnetic pyrites—nickeliferous.—Copper Cliff mine, lot 12, range II. of McKim, district of Nipissing, O.—Coll., A. E. Barlow, 1890.—Huronian, B. (5954.)  
**Magnetic pyrites**—nickeliferous, with copper pyrites.—Copper Cliff mine, lot 12, range II. of McKim, district of Nipissing, O. (5955.)  
**Copper pyrites**, with magnetic pyrites—nickeliferous.—Copper Cliff mine, lot II range II. of McKim, district of Nipissing, O.—Presented by the Canadian Copper Company, J. D. Evans, manager, 1885 (5957.)  
**Magnetic pyrites**—nickeliferous.—Lot 3, range IV. of Broder, district of Nipissing, O.—Coll., A. E. Barlow, 1891.—Huronian, B. (4661.)  
**Copper pyrites**.—Benzua mine, east side of Wahnapiite Lake, district of Nipissing, O.—Coll., A. E. Barlow, 1891.—Huronian, B. (4700.)  
**Magnetic pyrites**—nickeliferous, with copper pyrites.—Stobie mine, lot 5, range I. of Bezaud, district of Nipissing, O.—Coll., A. E. Barlow, 1889.—Huronian, B. (5953.)  
**Magnetic pyrites**—nickeliferous.—McCormick's mine, lot 12, range III. of Neelon, district of Nipissing, O.—Coll., A. E. Barlow, 1891.—Huronian, B. (5980.)  
Upright  
table-case  
26.  
**Magnetic pyrites**—nickeliferous, with copper pyrites.—Evans' mine, lot I. of Snider, district of Algoma, O.—Presented by the Canadian Copper Company, J. D. Evans, manager, 1885.—Huronian, B. (5958.)  
**Magnetic pyrites**—nickeliferous.—Lot 12, range III. of Denison, district of Algoma, O.—Coll., A. E. Barlow, 1891.—Huronian, B. (4697.)  
**Copper pyrites**, with magnetic pyrites—nickeliferous.—Vermilion mine, lot (and 6), range IV. of Denison, district of Algoma, O.—Coll., A. E. Barlow, 1891.—Huronian, B. (5948.)



DISTRIBUTION OF  
C.—Continued.SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
ORES OF ANTIMONY, ETC.—Continued.

## Ores of Nickel—Continued.

Charlotte county, N.B.—Pleasant  
county, O.—Coll., H. G.  
(345.)  
crossing, district of Thunder  
Bay, 1885.—Huronian, B. (5047.)

iferous.—L'Etete, Charlott  
A. B. (4892.)

Milltown, St. Stephen, Char  
P. Brunell, 1891. (4939.)  
Charlotte county, N.B. (6528.)  
range XII. of Orford, She  
cian, B? (5602.)

—Lots 27 and 28, range VIII  
Q.—Laurentian, A. (5965.)  
pyrites.—Murray mine, lot II  
of Nipissing, O.—Coll., A. E.  
(4644.)

iferous.—Copper Cliff mine, lot  
I of Nipissing, O.—Coll., A.  
B. (5954.)

pyrites.—Copper Cliff mine, lot  
I of Nipissing, O. (5955.)  
ons.—Copper Cliff mine, lot I  
of Nipissing, O.—Presented by  
J. D. Evans, manager, 1885.

IV. of Broder, district of Nip  
1891.—Huronian, B. (4664.)  
Wahnapitac Lake, district  
Barlow, 1891.—Huronian, B.

pyrites.—Stobie mine, lot 5, ran  
Nipissing, O.—Coll., A. E. Barlow,

's mine, lot 12, range III.  
O.—Coll., A. E. Barlow, 1891.

pyrites.—Evans' mine, lot  
I of Algoma, O.—Presented by  
J. D. Evans, manager, 1885.

range III. of Denison, district  
Barlow, 1891.—Huronian, B.

iferous.—Vermilion mine, lot  
I, district of Algoma, O.—Coll.,  
Huronian, B. (5948.)

**Magnetic pyrites**—nickeliferous, with copper pyrites and galena.—Travers  
mine, lot 3, range V. of Drury, district of Algoma, O.—Coll.,  
A. E. Barlow, 1891.—Huronian, B. (4668.)

**Copper pyrites**, with magnetic pyrites—nickeliferous.—Worthington mine, lot 2,  
range II. of Drury, district of Algoma, O.—Coll., A. E. Bar-  
low, 1890.—Huronian, B. (5940, 5941.)

**Copper pyrites**.—Worthington mine, lot 2, range II. of Drury, district of  
Algoma, O.—Coll., A. E. Barlow, 1890.—Huronian, B.  
(5942, 5943.)

**Magnetic pyrites**—nickeliferous.—Worthington mine, lot 2, range II. of Drury,  
district of Algoma, O.—Coll., A. E. Barlow, 1891.—Huron-  
ian, B. (5944.)

**Copper pyrites**, with magnetic pyrites—nickeliferous.—Worthington mine, lot  
2, range II. of Drury, district of Algoma, O.—Coll., A. E.  
Barlow, 1891.—Huronian, B. (5945, 5946, 5947.)

**Magnetic pyrites**—nickeliferous.—Dwyer and Loughran's location, lot 3, range  
III. of Drury, district of Algoma, O.—Coll., A. E. Barlow,  
1890.—Huronian, B. (5949.)

— O'Connor's claim, lot 11, range V. of Lorne, district of Algoma, O.—  
Coll., A. E. Barlow, 1890.—Huronian, B. (5950.)

— Lot 9, range VI. of Lorne, district of Algoma, O.—Coll., A. E.  
Barlow, 1890.—Huronian, B. (6526.)

— O'Connor's claim, lots 1 and 2, range III. of Nairn, district of  
Algoma, O.—Coll., A. E. Barlow, 1891.—Huronian, B.  
(5951.)

— with copper pyrites.—Lots 1 and 2, range VI. of Nairn, district of  
Algoma, O.—Coll., A. E. Barlow, 1891.—Huronian, B.  
(5952.)

— with copper pyrites.—Lot 3, range IV. of Leveck, district of  
Algoma, O.—Coll., A. E. Barlow, 1891. (4683.)

**Copper pyrites** with a nickeliferous iron sulphite. Wallace mine, about one  
mile west of the mouth of Whitefish River, Lake Huron,  
district of Algoma, O.—Coll., A. Murray, 1848.—Huronian,  
(4718.)

See also specimens contained in upright wing-case 3.

## Ore of Zinc.

**Zinc blende** (sphalerite).—St. Armand, Missisquoi county, Q.—Presented by O.  
Lagrange, 1875.—Pre-Cambrian, B? (1287.)

— Lot 10, range IV. of Calumet, Pontiac county, Q.—Presented by  
W. H. Murphy, 1888.—Laurentian, A. (1149.)

— Pointe aux Mines, Lake Superior, district of Algoma, O.—Coll., W.  
E. Logan, 1846.—Cambrian, C 1. (1194.)

— Victoria mine, Garden River, near Sault Ste. Marie, district of  
Algoma, O.—Coll., R. Bell, 1875.—Huronian, B. (356.)

— McKellar's Island, Lake Superior, district of Thunder Bay, O.—  
Coll., R. Bell, 1870.—Cambrian, C 1. (1280.)

— Kaministiquia River, district of Thunder Bay, O.—Coll., A. Murray,  
1846.—Cambrian, C 1. (1214.)

— McIntyre's mine, between Thunder Bay and Black Bay, Lake  
Superior, O.—Coll., R. Bell, 1869.—Cambrian, C 1. (1285.)

— Zenith zinc mine, about eleven miles north-east of Rossport (formerly  
McKay's Harbour), C. P. R., district of Thunder Bay, O.—  
Coll., R. Bell.—Huronian, B. (3544.)

Upright  
table-case  
26.  
Continued.

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
ORES OF ANTIMONY, ETC.—Continued.**Ore of Zinc—Continued.**Upright  
table-case  
26.—  
Continued.

- Zinc blende.**—Prince's location, Lake Superior, district of Thunder Bay, O. Coll., W. E. Logan, 1840.—Cambrian, C 1. (1282.)
- Head of the south branch of the Red Deer River, Rocky Mountain district of Alberta, N.W.T.—Presented by J. R. Costigan, 1885. (5084.)

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF ORES  
OF CHROMIUM, MOLYBDENUM, SULPHUR  
AND MANGANESE.**Ore of Chromium.**Upright  
table-case  
31.

- Chromic iron ore** (chromite).—Mount Albert, Shickshock Mountains, Gaspe county, Q.—Coll., J. Richardson, 1858.—Pre-Cambrian, A. (4761.)
- Lot 40, range II. of South Ham, Wolfe county, Q.—Coll., Richardson.—Cambrian, C. (4767.)
- Lot 17, range IV. of Thetford, Megantic county, Q.—Coll., N. Giroux, 1889.—Cambrian, C. (5193.)
- Lot 16, range IV. of Thetford, Megantic county, Q.—Presented by Dr. Reed, 1886.—Cambrian, C. (5329.)
- Lot 19, range X. of Coleraine, Megantic county, Q.—Presented by Dr. Reed, 1886.—Cambrian, C. (5330.)
- Lot 10, range X. of Leeds, Megantic county, Q.—Coll., N. Giroux, 1889.—Pre-Cambrian, B? (5379.)

**Ore of Molybdenum.**

- Molybdenite.**—North River, St. Ann's, Victoria county, Cape Breton, N.S.—Pre-Cambrian, A. B. (1780.)
- Chegoggin Point, about four miles north of Yarmouth, Yarmouth county, N.S.—Cambrian, C. (5055.)
- Miramichi, Northumberland county, N.B. (1267.)
- St. Jérôme, Terrebonne county, Q.—Coll., J. Richardson.—Laurentian, A. (1265.)
- Portage de Ste. Geneviève, Q. (1266.)
- Harvey Hill, Leeds, Megantic county, Q.—Pre-Cambrian, A. (4792.)
- Lot 15, range X. of Bagot, Bagot county, Q.—Presented by Hunter. (4825.)
- Lot 23, range XV. of Hull, Ottawa county, Q.—Coll., H. P. B. Mell, 1892.—Laurentian, A. (1869.)
- with molybdenite.—Lot 1, range II. of Allevy, Pontiac county, Q.—Presented by H. Henry, 1886.—Laurentian, A. (4859.)
- Lot 2, range III. of Aldfield, Pontiac county, Q.—Presented by H. G. Chapman, 1885.—Laurentian, A. (4916.)
- Lot 2, range VIII. of Fairley, Ottawa county, Q.—Presented by Davies, 1885.—Laurentian, A. (5051.)
- Lot 14, range V. of North Crosby, Leeds county, O.—Laurentian, A. (5578.)
- Lot 22, range II. of Ross, Renfrew county, O.—Coll., C. W. Timott, 1883.—Laurentian, A. (5590.)
- Terrace Bay, Lake Superior, district of Thunder Bay, O. (1263.)

DISTRIBUTION OF  
ORES OF CHROMIUM, ETC.—Continued.SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
ORES OF CHROMIUM, ETC.—Continued.

## Ore of Molybdenum—Continued.

- Molybdenite**—Lillooet River, vicinity of New Westminster, B.C.—Presented by A. J. Hill, 1886. (5273.)
- Near the head waters of the south fork of Spuzzum Creek, Fraser River, B.C.—Presented by J. W. Mackay, 1880. (5732.)
- From copper mine, north-east side of Texada Island, B.C.—Coll., G. M. Dawson, 1885. (3761.)
- Cortes Island, north-east coast of Vancouver Island, B.C.—Coll., G. M. Dawson, 1885. (5053.)

Upright  
table-case  
31.—  
Continued.DISTRIBUTION OF ORES  
OF SULPHUR  
CONTAINING  
MANGANESE.

## Ore of Sulphur.

- Iron pyrites** (pyrite).—Alfred, Prescott county, O.—Presented by Fred. Fooks, 1882.—Cambro-Silurian, D. (329.)
- Lot B, range II, of Elizabethtown, Leeds county, O.—Laurentian, A. (2450.)
- Lot 5, range IV, of Darling, Lanark county, O.—Presented by W. H. Wylie, 1886.—Laurentian, A. (2451.)
- East half of lot 1, range IV, of Dalhousie, Lanark county, O.—Coll., H. G. Vennor.—Laurentian, A. (2469.)
- North-west shore of Hudson Bay, south of Chesterfield Inlet, district of Keewatin.—Coll., R. Bell, 1885. (4687.)
- From head of Eckstall Inlet, south of Port Essington, Skeena River, B.C. (4688.)

## Ores of Manganese.

- Bog manganese**.—Near Blowdown settlement, Richmond, Carleton county, N. B.—Coll., W. Broad, 1882. (39.)
- Seigniory of Rivière Ouelle, Kamouraska county, Q.—Coll., J. Richardson.—Post Tertiary, M 3. (5195.)
- Lot 4, range V, of Madoc, Hastings county, O.—Coll., T. Macfarlane, 1865.—Post Tertiary, M 3. (5413.)
- Pyrolusite**.—Teny Cape, Hants county, N. S.—Coll., C. W. Willimott, 1883.—Carboniferous, G 1. (3674.)
- About three hundred yards east of Wasson's Bluff, Two Islands, Cumberland county, N. S.—Coll., C. W. Willimott, 1883.—Carboniferous, G. (3695.)
- About two and a half miles east of the head of Loch Lomond, Cape Breton county, N. S.—Presented by Dr. Girdwood, 1892.—Carboniferous, G 1. (4712.)
- Manganite**.—Churchill's mine, Walton, Hants county, N. S.—Coll., C. W. Willimott, 1883.—Carboniferous, G 1. (1930.)
- Teny Cape, Hants county, N. S.—Coll., C. W. Willimott, 1883.—Carboniferous, G 1. (3661.)
- Markhamville, King's county, N. B.—Coll., L. W. Bailey, 1875.—Carboniferous, G 1. (5074.)
- West Quaco, St. John county, N. B.—Coll., H. P. Brumell, 1890. (4755.)
- Grindstone Island, Magdalen Islands, Q.—Coll., J. Richardson, 1880.—Carboniferous, G 1. (5129.)
- Psilomelane**.—Gowland Mountain, Elgin, Albert county, N. B.—Presented by J. L. Harris, 1885.—Carboniferous, G 1. (5039.)

Specimens of manganese ores from the more important localities of their occurrence are shown in upright wing-case 4.

## MANGANESE ORES.

- Upright  
wing-case  
4.
- Pyrolusite.**—Morrison's mine, about two miles east of the head of Loch Lomond, Cape Breton county, N.S.—Presented by Hon. E. T. Mozeley.—Carboniferous, G l. (5038.)
- From about three hundred yards east of Wasson's Bluff, Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1888.—Carboniferous, G l. (5661.)
- Teny Cape, Hants county, N.S.—Coll., C. W. Willimott, 1883.—Carboniferous, G l. (83.)
- Manganite.**—Churchill's mine, Walton, Hants county, N.S.—Coll., C. W. Willimott, 1883.—Carboniferous, G l. (68.)
- Stephens' mine, Walton, Hants county, N.S.—Coll., C. W. Willimott, 1883.—Carboniferous, G l. (3646.)
- Black Rock, Clifton, Colchester county, N.S.—Coll., C. W. Willimott, 1883.—Carboniferous, G l. (74.)
- Markhamville, King's county, N.B.—Carboniferous, G l. (67.)
- Amherst Island, Magdalen Islands, Q.—Coll., J. Richardson, 1880.—Carboniferous, G l. (69.)
- Grindstone Island, Magdalen Islands, Q.—Coll., J. Richardson, 1880.—Carboniferous, G l. (66.)
- Psilomelane.**—Gowland Mountain, Elgin, Albert county, N.B.—Presented by J. L. Harris, 1885.—Carboniferous, G l. (125.)
- Manganiferous conglomerate.**—From four miles north-east of Walton village, Hants county, N.S.—Coll., C. W. Willimott, 1883.—Carboniferous, G l. (71.)
- Bog manganese (wad).**—French River, Colchester county, N.S.—Coll., S. Barlow, 1874.—Post Tertiary, M 3. (70.)
- Amherst Island, Magdalen Islands, Q.—Coll., J. Richardson, 1880.—(41.)
- Seigniorie of Rivière Ouelle, Kamouraska county, Q.—Coll., J. Richardson, 1858.—Post Tertiary, M 3. (72.)
- La Plaine, seigniorie of Cacouna, Temiscouata county, Q.—Coll., J. Richardson, 1858.—Post Tertiary, M 3. (85.)
- St. Louis Road, about four miles from Quebec city, Q.—Coll., W. E. Logan, 1852.—Post Tertiary, M 3. (87.)
- St. George, seigniorie of Aubert-Gallion, Beauce county, Q.—Post Tertiary, M 3. (88.)
- Lot 4, range V, of Maloc, Hastings county, Q.—Coll., T. Macfarlane, 1865.—Post Tertiary, M 3. (128.)

Specimens illustrating the distribution of manganese ore are shown in upright table-case 31.

## IRON ORES.

## Magnetite or Magnette Iron Ore.

- Magnetite.**—From half-way between Economy and Five Islands, Colchester county, N.S.—Coll., S. Barlow, 1875.—Triassic, H. (82.)
- Cleveland, Annapolis county, N.S.—Coll., T. C. Weston, 1879.—Devonian, F l. (106.)
- Clementsvale, Annapolis county, N.S.—Coll., T. C. Weston, 1879.—Devonian, F l. (164.)
- St. Francois, seigniorie of Rigaud-Vaudrenil, Beauce county, Q.—Cambrian, C l. (131.)
- Lot 7, range V, of Leeds, Megantic county, Q.—Presented by J. A. McVety, 1886.—Pre-Cambrian, B ? (184.)

## ORES.

miles east of the head of Loch  
county, N.S.—Presented by Hon. E.  
ous, G. I. (5038.)  
ards east of Wasson's Bluff, Two  
nty, N.S.—Coll., C. W. Willimott,  
1. (5661.)  
—Coll., C. W. Willimott, 1883.  
Hants county, N.S.—Coll., C. W.  
iferous, G. I. (68.)  
s county, N.S.—Coll., C. W. Will-  
ous, G. I. (3646.)  
er county, N.S.—Coll., C. W. Will-  
iferous, G. I. (74.)  
N.B.—Carboniferous, G. I. (67.)  
nds, Q.—Coll., J. Richardson, 1880  
(3.)  
Islands, Q.—Coll., J. Richardson,  
I. (86.)  
Albert county, N.B.—Presented by  
arboniferous, G. I. (125.)  
ur miles north-east of Walton village.  
—Coll., C. W. Willimott, 1883.  
(1.)  
olchester county, N.S.—Coll., S. Bar-  
ry, M. 3. (70.)  
ands, Q.—Coll., J. Richardson, 1880  
(3.)  
Kamouraska county, Q.—Coll., J.  
st Tertiary, M. 3. (72.)  
a, Temiscouata county, Q.—Coll., J.  
st Tertiary, M. 3. (85.)  
les from Quebec city, Q.—Coll., W.  
Tertiary, M. 3. (87.)  
bert-Gallion, Beauce county, Q.—Post  
Hastings county, O.—Coll., T. Macfar-  
ary, M. 3. (128.)  
tion of manganese ore are shown

## ORES.

## Magnetic Iron Ore.

onomy and Five Islands, Coleche-  
t. Barlow, 1875.—Triassic, H. (32.)  
N.S.—Coll., T. C. Weston, 1879.  
ty, N.S.—Coll., T. C. Weston, 1879  
(4.)  
ignaud-Vaudrenil, Beauce county, Q.—  
gantic county, Q.—Presented by J. A.  
ambrian, B? (184.)

## IRON ORES—Continued.

## Magnetite or Magnetic Iron Ore—Continued.

- Magnetite**—Lot 2, range X. of Leeds, Megantic county, Q.—Coll., W. E. Logan,  
1847.—Pre-Cambrian, B? (195.)  
— Lot 9, range IX. of Sutton, Brome county, Q.—Pre-Cambrian, B?  
(197.)  
— From between lots 22 and 24, range I. of South Ham, Wolfe  
county, Q.—Coll., C. W. Willimott, 1882.—Cambrian, C.  
(3657.)  
— Smith's mine, lots 20 and 21, range VI. of Ascot, Sherbrooke  
county, Q.—Coll., R. W. Ellis, 1886.—Pre-Cambrian, B?  
(5182.)  
— North half of lot 3, range IV. of Grenville, Argenteuil county, Q.—  
Laurentian, A. (174.)  
— South half of lot 3, range V. of Grenville, Argenteuil county, Q.—  
Coll., W. E. Logan, 1854.—Laurentian, A. (198.)  
— Lot 14, range XIII. of Portland, Ottawa county, Q.—Laurentian,  
A. (93.)  
— Forsyth's mine, lot 11, range VII. of Hull, Ottawa county, Q.—  
Laurentian, A. (96.)  
— Lots 23 and 24, ranges V. and VI. of Wakefield, Ottawa county, Q.  
—Pres. by J. Ledue.—Laurentian, A. (136.)  
— Lot 22, range II. of Bristol, Pontiac county, Q.—Pres. by J. Bell,  
1875.—Laurentian, A. (105.)  
— Lot 2, range XII. of Fitzroy, Carleton county, O.—Pres. by A.  
Bishop, 1875.—Laurentian, A. (95.)  
— Ross (opposite Portage du Fort), Renfrew county, O.—Laurentian,  
A. (126.)  
— Bygrove mine, lot 3, range I. of South Sherbrooke, Lanark county,  
O.—Coll., H. G. Vennor.—Laurentian, A. (127.)  
— Meyer's or Christie's Lake mine, lots 17, 18 and 19, range III. of  
South Sherbrooke, Lanark county, O.—Coll., H. G. Vennor.  
—Laurentian, A. (117.)  
— Chaffey mine, lot 26, range VI. of South Crosby, Leeds county, O.  
—Laurentian, A. (119.)  
— Lot 7, range II. of Escott, Leeds county, O.—Coll., A. Murray,  
1852.—Laurentian, A. (177.)  
— Thirty Island Lake, lot 6, range III. of Bedford, Frontenac county,  
O.—Coll., C. W. Willimott, 1883.—Laurentian, A. (133.)  
— Lots 5, 6 and 7, range XII. of Barrie, Frontenac county, O.—Pres.  
by Allison & Platt, 1887.—Laurentian, A. (5389.)  
— Dunganon, Hastings county, O.—Pres. by Hon. Billa Flint.—  
Laurentian, A. (121.)  
— Seymour ore bed, lot 11, range V. of Madoc, Hastings county, O.—  
Laurentian, A. (130.)  
— Lots 17, 18 and 19, range VIII. of Wollaston, Hastings county, O.  
—Pres. by Jenkins, Chambers & Clute, 1886.—Laurentian,  
A. (5220.)  
— Vicinity of Big ore bed, Blairton, lot 8, range I. of Belmont, Peter-  
borough county, O.—Laurentian, A. (86.)  
— Sand-pit bed, lot 8, range I. of Belmont, Peterborough county, O.  
—Laurentian, A. (124.)  
— Big ore bed, Blairton, lot 8, range I. of Belmont, Peterborough  
county, O.—Laurentian, A. (196.)  
— Lot 27, range XIII. of Galway, Peterborough county, O.—Lauren-  
tian, A. (148.)

Upright  
wing-case  
4.—  
Continued.

## IRON ORES—Continued.

## Magnetite or Magnetic Iron Ore—Continued.

- Upright  
wing-case  
4.  
Continued.
- Magnetite**—Lot 12, range XII. of Galway, Peterborough county, O.—Laurentian, A. (150.)
- Mining location V. XII. about three miles north-west of the village of Killarney, Georgian Bay, Lake Huron, O.—Coll., R. Bell, 1875.—Huronian, B. (142.)
- Peter Bell location, Batchewahung Bay, Lake Superior, O.—Coll., R. Bell, 1860.—Huronian, B. (115.)
- McKellar's location, Atik-o-kan (Antler) River, district of Rainy River, O.—Coll., R. Bell, 1888.—Archean, A. B. (5806.)
- Cherry Bluff, Kainloops Lake, B.C.—Coll., G. M. Dawson, 1877. (80.)
- East side of entrance to Harriet Harbour, Skinecuttle Inlet, Queen Charlotte Islands, B.C.—Coll., G. M. Dawson, 1878. (1012.)
- From an island near the north end of the Walker group, Queen Charlotte Sound, B.C.—Coll., J. Richardson, 1872. (79.)
- From about three miles north-west of Gillies Bay, south-west side of Texada Island, B.C.—Coll., J. Richardson, 1873. (81.)
- North-east side of Texada Island, B.C.—Coll., G. M. Dawson, 1885. (606.)

## Iron Sands.

- Iron sand**.—Moisie, Saguenay county, Q. (25.)
- do do (washed). (27.)
- Portneuf, seigniory of Mille Vaches, Saguenay county, Q. (29.)
- Bersimis, Saguenay county, Q. (32.)
- St. John River, Mingan, seigniory of Mingan, Saguenay county, Q. (35.)
- Natashquan, seigniory of Mingan, Saguenay county, Q. (36.)
- Batiscan, Champlain county, Q. (37.)

## Ilmenite or Titanic Iron.

- Upright  
wing-case  
5.
- Titanic iron ore**.—Rapid River, Bay of Seven Islands, Saguenay county, Q. Laurentian, A. (73.)
- Château Richer, Montmorency county, Q.—Laurentian, A. (76.)
- St. Irénée, seigniory of Malbaie, Charlevoix county, Q.—Laurentian, A. (163.)
- St. Urbain, at Bay St. Paul, Charlevoix county, Q.—Laurentian, A. (166.)
- Lot 9, range IX. of Sutton, Brome county, Q.—Presented by L. H. Smith. — Pre-Cambrian, B? (172.)
- Lot 7, range IX. of Sutton, Brome county, Q.—Presented by L. H. Smith. — Pre-Cambrian, B? (176.)
- Lot 2, range IX. of Brome, Brome county, Q.—Pre-Cambrian, B. (175.)

## Hematite and Varieties of the same.

- Hematite**.—Wentworth grant, Pictou county, N.S.—Coll., B. J. Harrington, 1873.—Silurian, E. (16.)
- East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873.—Silurian, E. (17.)
- (var. specular iron ore).—East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873.—Silurian, E. (111.)

ued.

pre—Continued.

borough county, O.—Lauren-

iles north-west of the village of  
ke Huron, O.—Coll., R. Bell,g Bay, Lake Superior, O.—  
n, B. (115.)(ntler) River, district of Rainy  
—Archean, A. B. (5806.)

—Coll., G. M. Dawson, 1877.

rbour, Skinettle Inlet, Queen  
G. M. Dawson, 1878. (1012.)l of the Walker group, Queen  
J. Richardson, 1872. (79.)of Gillies Bay, south-west side  
J. Richardson, 1873. (81.)

B.C.—Coll., G. M. Dawson.

ed.) (27.)

, Saguenay county, Q. (29.)

f Mingan, Saguenay county, Q.

saguenay county, Q. (36.)

7.)

Iron.

Islands, Saguenay county, Q.

ty, Q.—Laurentian, A. (76.)

harlevoix county, Q.—Laure-

voix county, Q.—Laurentian, A.

county, Q.—Presented by L. B.  
(172.)e county, Q.—Presented by L.  
B? (176.)

e county, Q.—Pre-Cambrian, B.

of the same.

N.S.—Coll., B. J. Harrington,

Coll., B. J. Harrington, 1873.

ver, Pictou county, N.S.—Col-  
lurian, E. (111.)

## IRON ORES—Continued.

## Hematite and Varieties of the same—Continued.

- Hematite**—(var. specular iron ore) with magnetite.—East River, Pictou county,  
N.S.—Coll., B. J. Harrington, 1873.—Silurian, E. (112.)
- Nictaux River, Annapolis county, N.S.—Coll., T. C. Weston, 1879.  
—Devonian, F. (167.)
- From about one mile from the mouth of the Beecauguinie River,  
Carleton county, N.B.—Coll., R. W. Ellis, 1874. (94.)
- Jacksontown, near Woodstock, Carleton county, N.B.—Coll., R.  
W. Ellis, 1874.—Silurian, E. (103.)
- (var. specular iron ore).—West side of Pinnacle Mountain, lot 15 of  
St. Armand west, Missisquoi county, Q.—Coll., W. E. Logan.  
—Pre-Cambrian, B? (91.)
- (var. specular iron ore).—Lot 25, range IX. of Brome, Brome  
county, Q.—Pre-Cambrian, B? (134.)
- (var. specular iron ore).—Haycock mine, lot 28, range VI. of  
Templeton, Ottawa county, Q.—Laurentian, A. (140.)
- (var. specular iron ore) dressed.—Haycock mine, lot 28, range VI.  
of Templeton, Ottawa county, Q.—Laurentian, A. (141.)
- (var. specular iron ore).—Lac des Chats, lot 2, range I. of Bristol,  
Pontiac county, Q.—Coll., W. E. Logan, 1846.—Lauren-  
tian, A. (180.)
- Lot 6, con. C and D. of McNab, Renfrew county, O.—Coll., W. E.  
Logan, 1846.—Laurentian, A. (199.)
- Dalhousie (Cowan) mine, east half of lot 1, range IV. of Dalhousie,  
Lanark county, O.—Coll., H. G. Vennor, 1872.—Lauren-  
tian, A. (200.)
- Lot 24, range IX. of Leeds, Leeds county, O. (89.)
- Wallbridge mine, east half of lot 12, range V. of Madoc, Hastings  
county, O.—Coll., C. W. Willimott, 1882.—Archean, A. B.  
(122.)
- Iron Island, Lake Nipissing, district of Nipissing, O.—Presented by  
Joseph Lemieux, 1887.—Laurentian, A. (138.)
- (var. specular iron ore).—Ryan's location, Mamainse (Nainainse),  
Lake Superior, district of Algoma, O.—Coll., W. E. Logan,  
1846.—Cambrian, C. (203.)
- (var. specular iron ore).—Pointe aux Mines, Lake Superior, district  
of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C.  
(152.)
- Little Gros Cap, north side of Michipicoten Harbour, Lake  
Superior, district of Thunder Bay, O.—Coll., R. Bell, 1876.  
—Huronian, B. (90.)
- Silver Lake mining location, township of McTavish, district of  
Thunder Bay, O.—Coll., R. Bell, 1875.—Cambrian, C. (132.)
- Black Island, Lake Winnipeg, Manitoba.—Coll., J. B. Tyrrell, 1889.  
—Archean, A. B. (151.)
- (var. specular iron ore).—Iron Mountain, Nicola River, near the  
mouth of Coldwater River, B.C.—Coll., G. M. Dawson,  
1877. (1221.)

Upright  
wing-case  
5.—  
Continued.

## Limonite or Brown Hematite.

- Limonite**—Londonderry, Colchester county, N.S.—Coll., B. J. Harrington,  
1873.—Cambro-Silurian, D. (78.)
- North vein, Cumberland Brook, Acadia Mines, Londonderry, Col-  
chester county, N.S.—Coll., A. R. C. Selwyn, 1872.—  
Cambro-Silurian, D. (97.)

## IRON ORES—Continued.

## Limonite or Brown Hematite—Continued.

- Upright  
wing-case  
5.—  
Continued.
- Limonite**—South vein, Cumberland Brook, Acadia Mines, Londonderry, Colchester county, N.S.—Coll., A. R. C. Selwyn, 1872.—Cambro-Silurian, D. (98.)
- Cumberland Brook, Acadia Mines, Londonderry, Colchester county, N.S.—Coll., A. R. C. Selwyn, 1872.—Cambro-Silurian, D. (135.)
- Ross' Farm, Acadia Mines, Londonderry, Colchester county, N.S.—Coll., A. R. C. Selwyn, 1872.—Cambro-Silurian, D. (100.)
- Engine pit, Acadia Mines, Londonderry, Colchester county, N.S.—Coll., A. R. C. Selwyn, 1872.—Cambro-Silurian, D. (118.)
- Martin's Brook, Acadia Mines, Londonderry, Colchester county, N.S.—Coll., C. W. Willimott, 1883.—Cambro-Silurian, D. (5314.)
- Londonderry, Colchester county, N.S.—Coll., C. W. Willimott, 1883.—Cambro-Silurian, D. (3666.)
- Londonderry, Colchester county, N.S.—Coll., C. W. Willimott, 1883.—Cambro-Silurian, D. (3668.)
- Fraser-Saddler area, east branch of East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873. (110.)
- Fraser-Saddler area, east branch of East River, Pictou county, N.S.—Presented by Mr. Primrose. (113.)
- Springville, East River, Pictou county, N.S.—Coll., F. Hartley, 1868. (144.)
- Brookfield, three miles east of railway station, Colchester county, N.S.—Presented by R. E. Chambers, 1889.—Devonian, F. (5728.)

## Bog Iron Ore.

- Bog Iron Ore.**—Nietaux River, Annapolis county, N.S.—Coll., T. C. Weston, 1879.—Post-Tertiary, M 3. (34.)
- St. Félix, Cap de la Magdeleine, Champlain county, Q.—Post-Tertiary, M 3. (1.)
- Ste. Marguerite, Cap de la Magdeleine, Champlain county, Q.—Post-Tertiary, M 3. (26.)
- Bois de Ail, near Portneuf, Portneuf county, Q.—Post-Tertiary, M 3. (30.)
- Second concession of Green Island, Temiscouata county, Q.—Post-Tertiary, M 3. (5.)
- St. Vallier, Bellechasse county, Q.—Post-Tertiary, M 3. (8.)
- From between Rivière du Sud and Rivière Bras, Bellechasse county, Q.—Post-Tertiary, M 3. (15.)
- Lot 26, range IV, of St. Etienne, St. Maurice county, Q.—Post-Tertiary, M 3. (11.)
- Lots 4, 5 and 6, range III, of Pointe du Lac, St. Maurice county, Q.—Post-Tertiary, M 3. (31.)
- Ste. Elizabeth, seigniorie of Lanoraie, Joliette county, Q.—Post-Tertiary, M 3. (4.)
- Lot 7, range II, of Kildare, Joliette county, Q.—Post-Tertiary, M 3. (6.)
- Ste. Rose (Rosalie), seigniorie of Lanoraie, Joliette county, Q.—Post-Tertiary, M 3. (13.)
- Stanbridge, Missisquoi county, Q.—Post-Tertiary, M 3. (3.)
- St. Jérôme, Terrebonne county, Q.—Post-Tertiary, M 3. (26.)



Continued.

Magnetite—Continued.

Acadia Mines, Londonderry, Colchester, A. R., C. Selwyn, 1872.—

Londonderry, Colchester county, N.S., 1872.—Cambro-Silurian, D. (100.)

Londonderry, Colchester county, N.S., 1872.—Cambro-Silurian, D. (118.)

Londonderry, Colchester county, N.S., 1883.—Cambro-Silurian, D. (118.)

N.S.—Coll., C. W. Willimott, (3666.)

N.S.—Coll., C. W. Willimott, (3668.)

East River, Pictou county, N.S., 1873. (110.)

East River, Pictou county, N.S., 1873. (113.)

N.S.—Coll., E. Hartley.

Railway station, Colchester county, N.S., 1889.—Devonian, F.

Magnetite.

N.S.—Coll., T. C. Weston, (34.)

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

Champlain county, Q.—Post-Tertiary.

## IRON ORES—Continued.

## Bog Iron Ore—Continued.

Bog Iron Ore—Rivière du Chêne, county of Two Mountains, Q.—Post-Tertiary, M 3. (14.)

Côte St. Charles, seigniory of Vaudreuil, Vaudreuil county, Q.—Post-Tertiary, M 3. (7.)

Ste. Angélique, seigniory of Vaudreuil, Vaudreuil county, Q.—Post-Tertiary, M 3. (20.)

St. François, seigniory of Rigaud-Vaudreuil, Beauce county, Q.—Presented by C. Deley, —Post-Tertiary, M 3. (21.)

Lot 21, range VIII. of Eardley, Ottawa county, Q.—Coll., W. E. Logan, 1846.—Post-Tertiary, M 3. (2.)

Lot 30, range II. of Leslie, Pontiac county, Q.—Presented by R. H. G. Chapman, 1885.—Post-Tertiary, M 3. (5122.)

North Elmsley, Lanark county, O.—Post-Tertiary, M 3. (12.)

Lot 21, range VII. of Bastard, Leeds county, O.—Post-Tertiary, M 3. (10.)

Thamesville, Campden, Kent county, O.—Post-Tertiary, M 3. (9.)

Vicinity of Brandon Hills, Manitoba.—Presented by J. Holmes, 1882. (38.)

## Siderite or Spathic Iron and Varieties of the same.

Spathic iron ore (siderite).—Mining locations 22, 23, 24, 25 and 26, township of McIntyre, district of Thunder Bay, O.—Cambrian, C. (5758.)

Clay iron-stone.—From near Tar Point, township of Douglas, Gaspé county, Q.—Coll., R. Bell, 1862.—Devonian, F. (75.)

North Saskatchewan River, near Edmonton, district of Alberta, N.W.T.—Coll., R. W. Ellis, 1875.—Cretaceous-Tertiary, K-L. (Laramie). (77.)

Dirt Hills, about one hundred miles south-west of Qu'Appelle, district of Assiniboia, N.W.T.—Coll., R. Bell, 1873.—Tertiary, L. (114.)

## SPECIMENS ILLUSTRATING THE DISTRIBUTION OF IRON ORES.

[These are arranged in a combined systematic and geographic manner. As facilitating a ready reference to the ore from any particular province, the specimens from the different provinces have been placed upon variously coloured card-board covering the bottom of the tray. The Maritime provinces being represented by greenish-blue, the province of Quebec by purplish-brown, that of Ontario by dark bluish-grey, the province of Manitoba and the North-west Territory by olive-green and the province of British Columbia by salmon-red.]

## Magnetite or Magnetic Iron Ore.

Magnetite.—Long Island, Cape Breton county, N.S.—Cambrian, C. (4674.)

Mount Hanly, Annapolis county, N.S.—Coll., Prof. How, 1860.—Triassic, H. (104.)

North Mountain, two miles from Middleton, Annapolis county, N.S.—Coll., Prof. How, 1860.—Triassic, H. (1945.)

Upright wing-case 5.—

Continued.

Table-case 42.

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
IRON ORES—*Continued.***Magnetite or Magnetic Iron Ore**—*Continued.*

Table-case	Magnetite	Nictaux River, Annapolis county, N.S.—Coll., T. C. Weston, 1879.
42 —	—	— Devonian, F. (1947.)
<i>Continued.</i>	—	Clementsvale, Annapolis county, N.S.—Coll., T. C. Weston, 1879.
	—	— Devonian, F. (2100.)
	—	(fossiliferous).—Clementsvale, Annapolis county, N.S.—Coll., T. C. Weston, 1879.—Devonian, F. (2101.)
	—	“Potter” bed, Clementsport, Annapolis county, N.S.—Devonian, F. (5807.)
	—	“Milner” bed, Clementsport, Annapolis county, N.S.—Devonian, F. (5808.)
	—	Bear River, Annapolis county, N.S.—Triassic, H. (1465.)
	—	Two miles west of Digby, Digby county, N.S.—Presented by R. W. Bulkeley, 1884.—Triassic, H. (4940.)
	—	From the head of Mill Stream, about fifteen miles from Bathurst and seven miles from the Intercolonial Railway, Gloucester county, N.B.—Cambro-Silurian, B. (362.)
	—	Deer Island, Passamaquoddy Bay, Charlotte county, N.B.—Coll., R. W. Eells, 1874.—Pre-Cambrian, A. B. (1944.)
	—	Pentecost River, Saguenay county, Q.—Coll., J. Richardson, 1864. Laurentian, A. (2102.)
	—	Two and a half miles south of St. Jérôme, Terrebonne county, Q.—Coll., F. D. Adams, 1882.—Laurentian, A. (3651.)
	—	Lot 26, range VII. of Bolton, Bromé county, Q.—Coll., W. E. Logan, 1847.—Pre-Cambrian, B? (1974.)
	—	Lot 2, range XIV. of Bolton, Bromé county, Q.—Pre-Cambrian, B? (1979.)
	—	Belvidere (Clark’s) mine, lot 8, range IX. of Ascot, Sherbrooke county, Q.—Coll., R. W. Eells, 1885.—Pre-Cambrian, B? (5125.)
	—	Inverness, Megantic county, Q.—Presented by E. Major, Montreal, 1872. (1958.)
	—	Lot 7, range V. of Leeds, Megantic county, Q.—Presented by J. McVety, 1886.—Pre-Cambrian, B? (1731.)
	—	From the vicinity of Kinnear’s Mills, Leeds, Megantic county, Q.—Pre-Cambrian, B? (5560.)
	—	Forsyth mine, lot 11, range VII. of Hull, Ottawa county, Q.—Laurentian, A. (1906.)
	—	Baldwin mine, lot 13, range VI. of Hull, Ottawa county, Q.—Laurentian, A. (1908.)
	—	Lot 12, range V. of Wright, Ottawa county, Q.—Laurentian, A. (2107.)
	—	Lots 39 and 49, range II. of Cameron, Ottawa county, Q.—Coll., H. G. Vemor, 1876.—Laurentian, A. (2109.)
	—	Mulgrave, Ottawa county, Q.—Presented by W. A. Allan, 1887. Laurentian, A. (5502.)
	—	Bristol mine, lot 22, range II. of Bristol, Pontiac county, Q.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1911.)
	—	Lot 12, range I. of Litchfield, Pontiac county, Q.—Presented by H. K. Egan, 1887.—Laurentian, A. (5457.)
	—	Eighth portage of the Rivière Quinze, Pontiac county, Q.—Coll., W. McQuat, 1872.—Laurentian, A. (1956.)
	—	North half of lot 1, range I. of Torbolton, Carleton county, Q.—Laurentian, A. (3640.)

## DISTRIBUTION OF

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
IRON ORES—*Continued.*—*Continued.*

Coll., T. C. Weston, 1879.

(Coll., T. C. Weston, 1879.

s county, N.S.—Coll., T. C.

101.)

is county, N.S.—Devonian.

is county, N.S.—Devonian,

riassic, H. (1465.)

N.S.—Presented by R. W.

1940.)

fifteen miles from Bathurst

Colonial Railway, Gloucester

D. (362.)

Charlotte county, N.B.—Coll.,

n, A. B. (1944.)

—Coll., J. Richardson, 1864.

me, Terrebonne county, Q.—

entian, A. (3651.)

county, Q.—Coll., W. E.

? (1974.)

nty, Q.—Pre-Cambrian, B?

IX. of Ascot, Sherbrooke

s, 1885.—Pre-Cambrian, B?

nted by E. Major, Montreal,

county, Q.—Presented by J.

B? (1731.)

Leeds, Megantic county, Q.—

Hull, Ottawa county, Q.—

f Hull, Ottawa county, Q.—

county, Q.—Laurentian, A.

a, Ottawa county, Q.—Coll.

an, A. (2109.)

nted by W. A. Alban, 1887.

ol, Pontiac county, Q.—Coll.

entian, A. (1911.)

ae county, Q.—Presented by

b, A. (5457.)

s, Pontiac county, Q.—Coll.

b, A. (1956.)

olton, Carleton county, O.—

**Magnetite or Magnetic Iron Ore—Continued.****Magnetite**—Lot 26, range II. of Huntley, Carleton county, O.—Laurentian, A. (2111.)

— Hill Island, one of the Thousand Islands, River St. Lawrence, Leeds county, O.—Laurentian, A. (5580.)

— Lot 12, range II. of North Crosby, Leeds county, O.—Coll., H. G. Vennor.—Laurentian, A. (5730.)

— Lot 9, range VII. of North Burgess, Lanark county, O.—Coll., H. G. Vennor.—Laurentian, A. (139.)

— Bulls pit, Wilbur mine, lot 4, range XII. of Lavant, Lanark county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5622.)

— No. 2 shaft, main vein, east part, Wilbur mine, lot 4, range XII. of Lavant, Lanark county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5623.)

— Caldwell mine, lot 13, range III. of Lavant, Lanark county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5625.)

— Fournier mine, lot 14, range I. of South Sherbrooke, Lanark county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1966.)

— Lot 24, range XII. of Rolph, Renfrew county, O.—Laurentian, A. (5631.)

— Lot 25, range XIII. of Rolph, Renfrew county, O.—Laurentian, A. (5632.)

— Norway Lake, lot 21, range X. of Bagot, Renfrew county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5617.)

— Calabogie mine, lot 12, range VI. of Bagot, Renfrew county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5619.)

— Lot 13, range VI. of Bagot, Renfrew county, O.—Laurentian, A. (2110.)

— Wilson mine, lot 12, range VIII. of Bagot, Renfrew county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5620.)

— Leronde mine, lot 23, range XI. of Bagot, Renfrew county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5630.)

— Williams mine, lot 21, range XII. of Bagot, Renfrew county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5616.)

— Lot 24, range II. of Stafford, Renfrew county, O.—Presented by Rev. Fr. Marion, 1889.—Laurentian, A. (3685.)

— Merry mine, lot 4, range IX. of Palmerston, Frontenac county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5627.)

— Robertsville mine, lot 4, range IX. of Palmerston, Frontenac county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5628.)

— Lot 28, range XI. of Palmerston, Frontenac county, O.—Presented by Messrs. Wylie &amp; Hall, 1884.—Laurentian, A. (3655.)

— Lot 17, range XI. of Olden, Frontenac county, O.—Laurentian, A. (3652.)

— Howse mine, lot 4, range I. of Bedford, Frontenac county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1968.)

— Eagle Lake, lot 29, range I. of Bedford, Frontenac county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1948.)

— Glendower mine, lot 6, range II. of Bedford, Frontenac county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5606.)

— Thirty Island Lake, lot 6, range III. of Bedford, Frontenac county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1931.)

— Lot 28, range IV. of Bedford, Frontenac county, O.—Presented by W. Davies, 1887.—Laurentian, A. (5507.)

Table-case  
42.—  
*Continued.*Table-case  
43.

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
IRON ORES—*Continued.***Magnetite or Magnetic Iron Ore**—*Continued.*

Table-case 43.— <i>Continued.</i>	<b>Magnetite</b> —Lots 5, 6 and 7, range XII. of Barrie, Frontenac county, O.—Presented by Messrs. Allison & Platt, 1887.—Laurentian, A. (443.)
—	Dufferin mine, lot 18, range I. of Madoc, Hastings county, O.—Coll. C. W. Willinott, 1885.—Laurentian, A. (5232.)
—	Hobson mine, lot 19, range I. of Madoc, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5585.)
—	Dominion mine, lot 2, range II. of Madoc, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5588.)
—	Seymour mine, lot 11, range V. of Madoc, Hastings county, O.—Coll. B. J. Harrington, 1873.—Laurentian, A. (1921.)
—	Gillen mine, lot 7, range VI. of Madoc, Hastings county, O.—Presented by John Stewart, 1882.—Laurentian, A. (2103.)
—	Cameron mine, lot 9, range VI. of Madoc, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5591.)
—	Forty-nine acre mine, lot 10, range VI. of Madoc, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5587.)
—	Sexsmith mine, lot 8, range VII. of Madoc, Hastings county, O.—Presented by John Stewart, 1882.—Laurentian, A. (2105.)
—	St. Charles mine, lot 10, range XII. of Tudor, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5609.)
—	Becker mine, lot 18, range XVIII. of Tudor, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5610.)
—	Emily mine, lot 7, range XIX. of Tudor, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5607.)
—	Louise or Orton mine, lot 57, west half of Free Grants, Hastings Road, Tudor, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5615.)
—	Killey's property, lot 13, range II. of Marmora, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5603.)
—	Kean ore bed, north side of Crow Lake, lot 12, range III. of Marmora, Hastings county, O.—Coll. H. G. Vennor, 1867.—Laurentian, A. (116.)
—	Marsh ore bed, lot 9, range VI. of Marmora, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5718.)
—	McCallum ore bed, lot 9, range VIII. of Marmora, Hastings county, O.—Coll. H. G. Vennor, 1867.—Laurentian, A. (120.)
—	Nihil mine, lot 16, range X. of Marmora, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5601.)
—	Lot 14, range I. of Wollaston, Hastings county, O.—Messrs. Chambers and McLeod, 1885.—Laurentian, A. (5197.)
—	Lot 15, range I. of Wollaston, Hastings county, O.—Messrs. Jenkins and Chambers, 1885.—Laurentian, A. (5199.)
—	Lot 15, range II. of Wollaston, Hastings county, O.—Messrs. Jenkins, Chambers, Brown and Clute, 1885.—Laurentian, A. (5198.)
—	Lot 16, range II. of Wollaston, Hastings county, O.—Messrs. Jenkins, Chambers, Brown and Clute, 1885.—Laurentian, A. (5202.)
—	Lot 15, range IV. of Wollaston, Hastings county, O.—Messrs. Jenkins, Chambers, Brown and Clute, 1885.—Laurentian, A. (5201.)
—	Coe Hill mine, lot 16, range VIII. of Wollaston, Hastings county, O.—Coll. E. Coste, 1884.—Laurentian, A. (5604.)

## DISTRIBUTION OF

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
IRON ORES—Continued.

—Continued.

—Frontenac county, O.—Preston, 1887.—Laurentian, A.

—Hastings county, O.—Laurentian, A. (5232.)

—Hastings county, O.—Coll., (5585.)

—Hastings county, O.—A. (5588.)

—Hastings county, O.—Laurentian, A. (1921.)

—Hastings county, O.—Preston, A. (2103.)

—Hastings county, O.—A. (5591.)

—Madoc, Hastings county, Laurentian, A. (5587.)

—Hastings county, O.—Laurentian, A. (2105.)

—Hastings county, O.—A. (5609.)

—Hastings county, O.—A. (5610.)

—Hastings county, O.—A. (5607.)

—Free Grants, Hastings—Coll., E. Coste, 1884.—

—Marmora, Hastings county, Laurentian, A. (5603.)

—Lot 12, range III. of Marlborough, H. G. Vemor, 1867.—

—Hastings county, O.—A. (5718.)

—Marmora, Hastings county, Laurentian, A. (120.)

—Hastings county, O.—A. (5601.)

—Hastings county, O.—Messrs. Laurentian, A. (5197.)

—Hastings county, O.—Messrs. Laurentian, A. (5199.)

—Hastings county, O.—Messrs. Jenkins, 1885.—Laurentian, A.

—Hastings county, O.—Messrs. Jenkins, 1885.—Laurentian, A.

—Wollaston, Hastings county, Laurentian, A. (5604.)

**Magnetite or Magnetic Iron Ore—Continued.****Magnetite**—Lots 17 and 18, range VIII. of Wollaston, Hastings county, O.—Messrs. Jenkins, Chambers and Clute, 1885.—Laurentian, A. (5203.)

—Lot 9, range XV. of Wollaston, Hastings county, O.—Messrs. Jenkins and Chambers, 1885.—Laurentian, A. (5200.)

—Lot 10, range XV. of Wollaston, Hastings county, O.—Messrs. Jenkins, Chambers and Mallett, 1885.—Laurentian, A. (5196.)

—Big ore bed, Blairton, lot 8, range I. of Belmont, Peterborough county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1914.)

—Lot 19, range I. of Belmont, Peterborough county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5613.)

—Lot 22, range XII. of Galway, Peterborough county, O.—Laurentian, A. (149.)

—Swamp Lake, lot 23, range XII. of Galway, Peterborough county, O.—Coll., E. Coste, 1885.—Laurentian, A. (5612.)

—Paxton &amp; Jones mine, lot 5, range V. of Lutterworth, Haliburton county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5626.)

—Lot 20, range I. of Snowdon, Haliburton county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1951.)

—From the vicinity of Little Gull Lake, district of Thunder Bay, O.—Coll., E. D. Ingall, 1886.—Cambrian, C. I. (5391.)

—McKinley's location, north shore of Gun-flint Lake, district of Thunder Bay, O.—Coll., A. C. Lawson, 1887.—Cambrian, C. I. (5559.)

—Greenwater Lake, district of Thunder Bay, O.—Coll., W. Melmes, 1891.—Archean, A. B. (5396.)

—Seine River (fifty miles down from Savanne on the Canadian Pacific Railway), district of Rainy River, O.—Presented by T. McKellar, 1885.—Archean, A. B. (5048.)

—"Lake where the river bends," Big Turtle River, district of Rainy River, O.—Coll., W. H. C. Smith, 1891.—Archean, A. B. (2582.)

—McKellar Brothers' location, Atik-o-kan (Antler) River, district of Rainy River, O.—Coll., R. Bell, 1888.—Archean, A. B. (5805.)

—Magnetite Island, Narrows of Knee Lake, district of Keewatin, O.—Coll., R. Bell, 1878.—Huronian, B. (2112.)

—Pine Creek, Waterton River (fifteen miles from the fork of North Fork and Waterton River), district of Alberta, N.W.T. (3712.)

—Kootanie River (between Kootanie Lake and Columbia River, at the ferry below the lower fall), B.C.—Coll., G. M. Dawson, 1889. (24.)

—Ten miles from Hope, Fraser River, B.C.—Coll., J. Richardson, 1873. (1953.)

—Joseph Watkinson's farm, left bank of the Fraser River, twenty-three miles above Lytton, B.C.—Coll., G. M. Dawson, 1888. (5775.)

—Half a mile below Nicoamen, Thompson River, B.C.—Coll., J. Richardson, 1873. (1954.)

—Knight Inlet, B.C.—Coll., J. Richardson, 1873. (1955.)

—North side of Rivers Inlet (about twenty-five miles up), B.C.—Coll., G. M. Dawson, 1888. (5735.)

Table-case  
43.—  
Continued.

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
IRON ORES—*Continued.***Magnetite or Magnetic Iron Ore**—*Continued.*

- Table-case 44. **Magnetite.**—North-east side of Texela Island, B.C.—Coll., G. M. Dawson, 1885. (469.)
- From a mine about three miles north-west of Gillies Bay, south-west side of Texela Island, B.C.—Coll., J. Richardson, 1873. (1946.)
- Sooke iron mine, Strait of Juan de Fuca, Vancouver Island, B.C. (5282.)
- From an island near the north end of the Walker Group, in Queen Charlotte Sound, B.C.—Coll., J. Richardson, 1872. (1952.)
- Magnetic iron sand.**—Cape Commerell, north end of Vancouver Island, B.C.—Coll., G. M. Dawson, 1885. (5386.)

**Hematite, and Varieties of the same.**

- Hematite.**—Gallas Point, east side of Hillsborough Bay, Prince Edward Island—Coll., A. R. C. Selwyn, 1874.—Carboniferous, G. 4. (2024.)
- Indian Reserve, Whykokomagah, Inverness county, N.S.—Coll., C. Robb, 1873.—Pre-Cambrian, A. B. (2007.)
- Breac Brook, East Bay, Cape Breton county, N.S.—Coll., H. Fletcher, 1879.—Contact of Carboniferous, G, and Pre-Cambrian, A. B. (2017.)
- Near Big Pond, East Bay, Cape Breton county, N.S.—Contact of Carboniferous, G, and Pre-Cambrian, A. B. (6529.)
- Loran Beach, Louisbourg, Cape Breton county, N.S.—Coll., A. R. C. Selwyn, 1874.—(Loose.) (2010.)
- Archie McVicar's mine, near the head of Loch Lomond, Cape Breton county, N.S.—Coll., H. Fletcher, 1881.—Carboniferous, G. 1. (2124.)
- (var. micaceous iron ore).—Robinson Cove, near St. Peters, Richmond county, N.S.—Devonian, F. (5712.)
- (var. micaceous iron ore).—Borrowdale, Salmon River, Richmond county, N.S.—Devonian, F. (3664.)
- (var. micaceous iron ore).—Gairloch Mountain, Middle River, Victoria county, N.S.—Coll., H. Fletcher, 1879.—Contact of Carboniferous, G, and Pre-Cambrian, A. B. (2126.)
- (var. micaceous iron ore).—Cameron's Mill, Roman Valley, Guysborough county, N.S.—Coll., H. Fletcher, 1884.—Devonian, F. (3662.)
- (var. specular iron ore).—Crane Iron Company's mine, Salus River, Guysborough county, N.S.—Coll., H. Fletcher, 1883.—Devonian, F. (3663.)
- (var. micaceous iron ore).—Near Stewart Pond, Guysborough county, N.S.—Coll., H. Fletcher, 1879.—Devonian, F. (2125.)
- (var. specular iron ore).—Chedabucto Bay, Guysborough county, N.S.—Coll., H. Fletcher, 1878.—Devonian, F. (1990.)
- Polson's Lake, Antigonish county, N.S.—Coll., A. R. C. Selwyn, 1874.—Devonian, F. (2020.)
- Nietaux River, Annapolis county, N.S.—Coll., T. C. Weston, 1873.—Devonian, F. (2127.)
- Teny Cape, Hants county, N.S.—Coll., C. W. Willimott, 1883.—Carboniferous, G. 1. (3667.)
- Area 45 (Blanchards), Pictou county, N.S.—Coll., B. J. Harrington, 1873.—Silurian, E. (2003.)

DISTRIBUTION OF  
ad.

re—Continued.

—Coll., G. M. Dawson, 1885.

h-west of Gillies Bay, south  
—Coll., J. Richardson, 1873.

Fuent, Vancouver Island, B.C.

the Walker Group, in Queen  
J. Richardson, 1872. (1952.)l of Vancouver Island, B.C.  
(386.)

the same.

h Bay, Prince Edward Island  
—Carboniferous, G 4. (2024.)ness county, N.S.—Coll., C.  
B. (2007.)on county, N.S.—Coll., H.  
Carboniferous, G, and Pre-ton county, N.S.—Contact of  
Cambrian, A. B. (6529.)on county, N.S.—Coll., A. B.  
(1010.)l of Loch Lomond, Cape Breton  
Fletcher, 1881.—Carboniferousn Cove, near St. Peters, Bie  
F. (5712.)ale, Salmon River, Richmon  
(3664.)Mountain, Middle River, Vic  
Fletcher, 1879.—Contact of  
Cambrian, A. B. (2128.)a's Mill, Roman Valley, Guy  
H. Fletcher, 1884.—Devonianon Company's mine, Salme  
N.S.—Coll., H. Fletcher, 188art Pond, Guysborough county  
—Devonian, F. (2125.)to Bay, Guysborough county  
—Devonian, F. (1990.)

N.S.—Coll., A. R. C. Selwyn

N.S.—Coll., T. C. Weston, 187

Coll., C. W. Willimott, 1883.

y, N.S.—Coll., B. J. Harrin  
(3.)SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
IRON ORES (Continued.)

## Hematite and Varieties of the same—Continued.

Hematite—Area 100, East River, Pictou county, N.S.—Coll., B. J. Harrington,  
1873.—Silurian, E. (2005.)— (var. specular iron ore).—Area 100, East River, Pictou county, N.  
S.—Coll., B. J. Harrington, 1873.—Silurian, E. (1995.)— Area 108, Pictou county, N.S.—Coll., B. J. Harrington, 1873.—  
Silurian, E. (2014.)— Peter Totten lot, Acadia Mines, Londonderry, Colchester county,  
N.S.—Coll., A. R. C. Selwyn, 1872.—Cambro-Silurian, D.  
(102.)— (var. specular iron ore).—Cook's Brook, Acadia Mines, London-  
derry, Colchester county, N.S.—Coll., B. J. Harrington,  
1873.—Cambro-Silurian, D. (1996.)— Iron Ore Hill, near Jacksonville, Carleton county, N.B.—Coll., R.  
W. Ells, 1874.—Silurian, E. (2025.)— Carnie's Mine, Moody's Hill, near Jacksonville, Carleton county,  
N.B.—Coll., R. W. Ells, 1874.—Silurian, E. (2026.)— Stevens' Mine, Jacksontown, near Woodstock, Carleton county,  
N.B.—Coll., R. W. Ells, 1874.—Silurian, E. (2027.)— Jarvis Eady's lot, Flagstaff Hill, Carleton county, N.B.—Coll., R.  
W. Ells, 1874.—Silurian, E. (2028.)— About one mile from the mouth of the Becaguimic River, Carleton  
county, N.B.—Coll., R. W. Ells, 1874.—Silurian, E. (2029.)— Amherst Island, Magdalen Islands, Q.—Coll., J. Richardson, 1880.  
—Carboniferous, G 1. (2128.)— (var. specular iron ore).—Lot 17, range XIII. of Leeds, Megantic  
county, Q.—Pre-Cambrian, B? (1999.)— (var. micaceous iron ore).—Lot 45, St. Armand East, Missisquoi  
county, Q.—Pre-Cambrian, B? (92.)— (var. specular iron ore).—West side of Pinnacle Mountain, St.  
Armand West, Missisquoi county, Q.—Pre-Cambrian, B?  
(1994.)— (var. specular iron ore).—Lot 6, range IX. of Sutton, Brome  
county, Q.—Pre-Cambrian, B? (2006.)— (var. specular iron ore).—Lot 22, range III. of Shefford, Shefford  
county, Q.—Presented by J. A. Leitch, 1886.—Pre-Cam-  
brian, B? (5326.)— (var. specular iron ore).—Haycock mine, lot 28, range VI. of Tem-  
pleton, Ottawa county, Q.—Coll., B. J. Harrington, 1873.—  
Laurentian, A. (1993.)— (var. specular iron ore).—Lac des Chats, lot 2, range I. of Bristol,  
Pontiac county, Q.—Coll., W. E. Logan, 1846.—Laurentian,  
A. (1997.)— Lot 27, range VIII. of Charendon, Pontiac county, Q.—Presented  
by J. McTiernan, 1888.—Laurentian, A. (5561.)— East half of lot 14, range XI. of Beckwith, Lanark county, O.—  
Coll., A. R. C. Selwyn, 1887.—Cambrian, C 2. (5335.)— Lot 30, range VI. of North Elmsley, Lanark county, O.—Presented  
by A. B. Savage, 1872.—Laurentian, A. (2009.)— Dalhousie or Cowan mine, east half of lot 1, range IV. of Dalhousie,  
Lanark county, O.—Coll., B. G. Vennor, 1872.—Laurentian,  
A. (2019.)— Lot 23, range XI. of Darling, Lanark county, O.—Laurentian, A.  
(5558.)

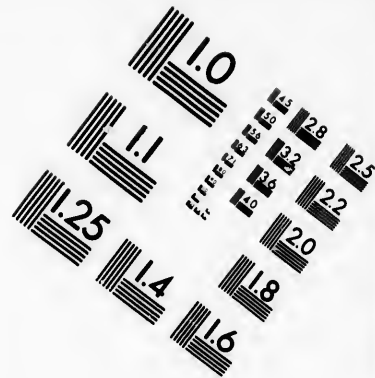
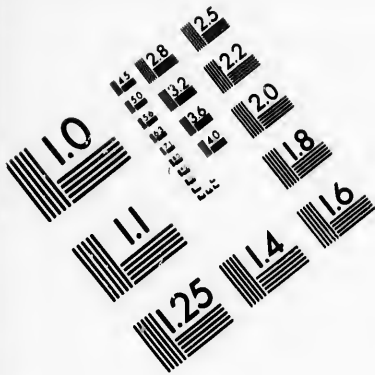
Table-case

44.—

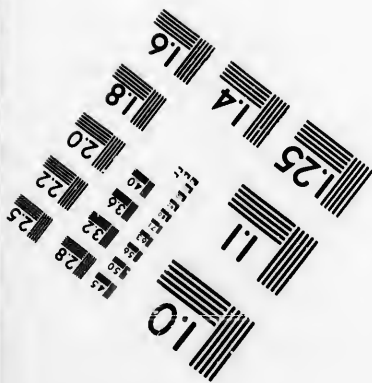
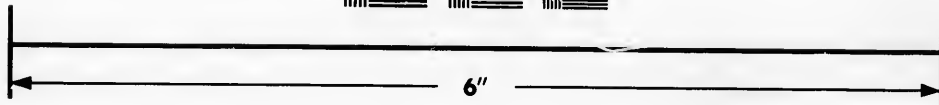
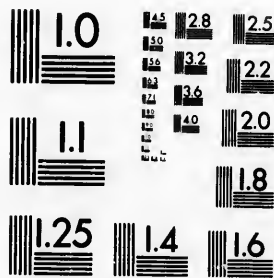
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SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
IRON ORES—Continued.**Hematite, and Varieties of the same—Continued.**

Table-case 44.— Continued.	<b>Hematite.</b>	— Lot 6, concession C and D of McNab, Reufrew county, O.—Coll., W. E. Logan, 1846.—Laurentian, A. (2031.)
		— Lot 24, range X. of Bastard, Leeds county, O.—Cambrian, C1. (2032.)
		— Lot 19, range IX. of South Crosby, Leeds county, O.—Presented by M. Brown, 1886.—Laurentian, A. (5283.)
		— Lot 24, range IX. of Leeds, Leeds county, O. (2030.)
		— Lots 7 and 8, range III. of South Canonto, Frontenac county, O.—Laurentian, A. (5581.)
Table-case 45.		— West half of lot 28, range V. of Oso, Frontenac county, O.—Presented by W. A. Allan, 1889.—Laurentian, A. (5722.)
		— Wallbridge mine, east half of lot 12, range V. of Madoc, Hastings county, O.—Archean, A.B. (2129.)
		— (var. micaceous iron ore).—St. Charles mine, lot 4, range VI. of Madoc, Hastings county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5596.)
		— St. Charles mine, lot 4, range VI. of Madoc, Hastings county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5597.)
		— Lot 12, range V. of Madoc, Hastings county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5589.)
		— Lot 14, range IX. of Marmora, Hastings county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5600.)
		— Bentcliffe mine, lot 13, range X. of Marmora, Hastings county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5598.)
		— Lot 7, range V. of Belmont, Peterborough county, O.—Laurentian, A. (260.)
		— Iron Island, Lake Nipissing, O.—Laurentian, A. (2022.)
		— Talon Chute, township of Orlig, district of Nipissing, O.—Coll., H. P. Brunell, 1887.—Laurentian, A. (5780.)
		— Stobie mine, V. 8, township of Coffin additional, district of Algoma, O.—Coll., A. R. C. Selwyn, 1888.—Huronian, B. (5633.)
		— (var. micaceous iron ore).—Stobie mine, V. 8, township of Coffin additional, district of Algoma, O.—Coll., A. R. C. Selwyn, 1888.—Huronian, B. (5634.)
		— (var. specular iron ore).—Wallace mining location, near Whitefish River, district of Algoma, O.—Coll., A. Murray, 1847.—Huronian, B. (1998.)
		— Alvira Bay, Lake Superior, O.—Coll., W. E. Logan, 1846. (3647.)
		— Little Gros Cap, north side of Michipicoten Harbour, Lake Superior, O.—Coll., R. Bell, 1876.—Huronian, B. (2033.)
		— (var. specular iron ore).—Cape Gargantua, Lake Superior, O.—Coll., W. E. Logan, 1846. (2008.)
		— Eastern part of Silver Lake mining location, township of McTavish, district of Thunder Bay, O.—Coll., R. Bell, 1875.—Cambrian, C1. (2076.)
		— Location R 280, about three-quarters of a mile west of Loon Lake, district of Thunder Bay, O.—Coll., A. C. Lawson, 1887. (5563.)
		— Black Island, Lake Winnipeg, Manitoba.—Presented by W. Murdoch, 1882.—Archean, A. B. (3653.)
		— (var. specular iron ore).—At the junction of Nicola and Coldwater Rivers, B.C.—Presented by De Wolf & Monro, Vancouver, B.C. (3749.)

DISTRIBUTION OF  
of.

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
IRON ORES—Continued.

ne—Continued.

Renfrew county, O.—Coll., A. (2031.)  
 county, O.—Cambrian, C 1.  
 eds county, O.—Presented by A. (5283.)  
 y, O. (2030.)  
 to, Frontenac county, O.—  
 Frontenac county, O.—Pre-aureantian, A. (5722.)  
 nge V. of Madoc, Hastings (29.)  
 mine, lot 4, range VI. of ll., E. Coste, 1884.—Lauren-  
 adoc, Hastings county, O.— n, A. (5597.)  
 county, O.—Coll., E. Coste, (5600.)  
 ora, Hastings county, O.— n, A. (5598.)  
 gh county, O.—Laurentian,  
 ntian, A. (2022.)  
 of Nipissing, O.—Coll., H. A. (5780.)  
 ditional, district of Algoma,  
 k.—Huronian, B. (5633.)  
 ne, V. 8, township of Collin  
 O.—Coll., A. R. C. Selwyn,

**Limonite.**—East branch of the East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873. (2051.)  
 — Area 46 (Fraser Saddler), East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873. (2052.)  
 — Area 105 (Cullen), near the west branch of the East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873. (2156.)  
 — Fraser Saddler area, East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873. (2061.)  
 — Brookfield, Colechester county, N.S.—Presented by R. E. Chambers, 1889.—Devonian, F. (5729.)  
 — Between Martin's and Cumberland Brooks, Acadia Mines, Londonderry, Colechester county, N.S.—Coll., A. R. C. Selwyn, 1872.—Cambro-Silurian, D. (2047.)  
 — Martin's Brook, Acadia Mines, Londonderry, Colechester county, N.S.—Cambro-Silurian, D. (2054.)  
 — Martin's Brook, Acadia Mines, Londonderry, Colechester county, N.S.—Coll., B. J. Harrington, 1873.—Cambro-Silurian, D. (2132.)  
 — Cumberland Brook, Acadia Mines, Londonderry, Colechester county, N.S.—Coll., A. R. C. Selwyn, 1872.—Cambro-Silurian, D. (2050.)  
 — Acadia Mines, Londonderry, Colechester county, N.S.—Cambro-Silurian, D. (1366.)  
 — Probert level, Acadia Mines, Londonderry, Colechester county, N.S.—Coll., A. R. C. Selwyn, 1872.—Cambro-Silurian, D. (2131.)  
 — Acadia Mines, Londonderry, Colechester county, N.S.—Coll., C. W. Willimott, 1883.—Cambro-Silurian, D. (4643.)  
 — Cape Enragé, Albert county, N.B.—Coll., R. W. Ells, 1877.—Car-boniferous, G 1. (2130.)

Table-case  
45.—  
Continued.

**Bog Iron Ore.**

**Bog Iron Ore.**—From near the Indian Reserve, Whykokomagh, Inverness county, N.S.—Coll., C. Robb, 1873.—Post-Tertiary, M 3. (2133.)  
 — Concession 2 of Green Island, Temiscouata county, Q.—Post-Tertiary, M 3. (2070.)  
 — St. Félix, Cap de la Magdeleine, Clamplain county, Q.—Post-Tertiary, M 3. (2067.)  
 — St. Maurice Forges, vicinity of Three Rivers, St. Maurice county, Q.—Coll., B. J. Harrington, 1874.—Post-Tertiary, M 3. (2058.)  
 — Lot 26, range IV. of St. Etienne, St. Maurice county, Q.—Post-Tertiary, M 3. (2068.)  
 — Ste. Rose (Rosalie), Lanoraie, Joliette county, Q.—Post-Tertiary, M 3. (2078.)  
 — Lot 7, range I. of Kildare, Joliette county, Q.—Post-Tertiary, M 3. (2062.)  
 — Lot 8, range XII. of Simpson, Drummond county, Q.—Post-Tertiary M 3. (2074.)  
 — St. Vallier, Bellechasse county, Q.—Post-Tertiary, M 3. (2077.)  
 — L'Acadie, St. John's county, Q.—Post-Tertiary, M 3. (2134.)

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF IRON ORES—*Continued.***Bog Iron Ore—Continued.**

- Table-case 45.—*Continued.*
- Bog Iron Ore.**—Lot 12, range IV. of Ireland, Megantic county, Q.—Post-Tertiary, M 3. (2064.)
- Stanbridge, Missisquoi county, Q.—Post-Tertiary, M 3. (2066.)
- St. Francois, seigniory of Rigaud-Vaudreuil, Beauce county, Q.—Post-Tertiary, M 3. (2075.)
- Lake Aylmer Road, lot 22, Wolfe county, Q.—Post-Tertiary, M 3. (4670.)
- Lot 15, range IV. of Ascot, Sherbrooke county, Q.—Post-Tertiary, M 3. (3669.)
- (manganiferous).—Ste. Angélique, Vaudreuil county, Q.—Post-Tertiary, M 3. (2063.)
- Lot 11 of Côte St. Charles, seigniory of Vaudreuil, Vaudreuil county, Q.—Post-Tertiary, M 3. (2073.)
- Table-case 46.
- Upper Rocky Point, lot 21, range VIII. of Eardley, Ottawa county, Q.—Coll., W. E. Logan, 1846.—Post-Tertiary, M 3. (2071.)
- Lot 21, range VII. of Bastard, Leeds county, O.—Post-Tertiary, M 3. (2059.)
- Thamesville, Camden, Kent county, O.—Post-Tertiary, M 3. (2072.)
- Twenty-two miles north-west of Fort Mattachewan, Montreal River district of Nipissing, O.—Presented by E. B. Haycock, 1888.—Post-Tertiary, M 3. (5714.)
- Brandon Hills, Manitoba.—Presented by J. Holmes, 1881. (3669.)

**Siderite or Spathic Iron, and Varieties of the same.**

- Siderite.**—Sutherland's River, Pictou county, N.S.—Coll., E. Hartley, 1878.—Carboniferous, G. 2. (2086.)
- New Mines.—Acadia Mines, Londonderry, Colchester county, N.S.—Coll., A. E. Barlow, 1884.—Carboniferous, G. 2. (2135.)
- (partially altered to hematite).—Peter Totten lot, Acadia Mines, Londonderry, Colchester county, N.S.—Coll., B. J. Harrington, 1873.—Cambro-Silurian, D. (2012.)
- (altered to hematite).—Peter Totten lot, Acadia Mines, Londonderry, Colchester county, N.S.—Coll., B. J. Harrington, 1873.—Cambro-Silurian, D. (2099.)
- Lots 22 to 26, township of McIntyre, district of Thunder Bay.—Cambrian, C 1. (5759.)
- First Fall, Little Whale River, east coast of Hudson Bay.—Coll., R. Bell, 1877.—Cambrian, C. (4639.)
- Flint Island, east coast of Hudson Bay.—Coll., R. Bell, 1877.—Cambrian, C. (4728.)
- Clay iron-stone.**—Springhill, Cumberland county, N.S.—Coll., S. Barron, 1873.—Carboniferous, G 3. (2089.)
- South Joggins, Cumberland county, N.S.—Coll., T. C. Weston, 1882.—Carboniferous, G. (2085.)
- East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873.—Carboniferous, G. (2092.)
- Souris City, Souris River, Manitoba.—Coll., A. R. C. Selby, 1882.—Cretaceo-Tertiary, K. L. (Laramie). (3747.)

**THE DISTRIBUTION OF SPECIMENS ILLUSTRATING THE DISTRIBUTION OF IRON ORES—Continued.**

**Siderite or Spathe Iron, and Varieties of the same—Continued.**

- Olney iron-stone.**—Pembina River, Manitoba.—Coll., G. M. Dawson, 1873.—Cretaceous, K. (5570.)
- Great Valley, district of Assiniboia, N.W.T.—Coll., G. M. Dawson, 1873.—Cretaceous-Tertiary, K.L. (Laramie). (2082.)
- Souris River, near Wood End Depot, district of Assiniboia, N.W.T.—Coll., G. M. Dawson, 1873. (5572.)
- Twelve miles east of White Mud River (on trail), district of Assiniboia, N.W.T.—Coll., G. M. Dawson, 1873. (3656.)
- Bad Lands, south of Wood Mountain, district of Assiniboia, N.W.T.—Coll., G. M. Dawson, 1873. (5569.)
- North-east of East Butte, district of Assiniboia, N.W.T.—Coll., G. M. Dawson, 1873.—Cretaceous, K. (5571.)
- About fifteen miles south of Fort Pelly, at the intersection of Fort Pelly Road and White Mud River, district of Assiniboia, N.W.T.—Coll., R. Bell, 1875.—Cretaceous, K. (2140.)
- Dirt Hills, about one hundred miles south-west of Qu'Appelle, district of Assiniboia, N.W.T.—Coll., R. Bell, 1873.—Tertiary, L. (2079.)
- Middle Bluff, Dirt Hills, district of Assiniboia, N.W.T.—Coll., R. Bell, 1873.—Tertiary, L. (2083.)
- North Saskatchewan River, near Edmonton, District of Alberta, N.W.T.—Coll., R. W. Ellis, 1875.—Cretaceous-Tertiary, K. L. (Laramie). (2090.)
- (partially reduced). From burnt seam of lignite, Hancy's second claim, North Saskatchewan River, section 35, township 50, range IV., west of the 5th initial meridian, about sixty miles above Edmonton, district of Alberta, N.W.T.—Coll., J. B. Tyrrell, 1886.—Cretaceous-Tertiary, K. L. (Laramie). (5443.)
- Ridge south of Battle River, township 38, range XIII., west of the 4th initial meridian, district of Alberta, N.W.T.—Coll., J. B. Tyrrell, 1884.—Cretaceous-Tertiary, K. L. (Laramie). (5435.)
- Red Deer River, township 35, range XXI., west of the 4th initial meridian, district of Alberta, N.W.T.—Coll., J. B. Tyrrell, 1884.—Cretaceous-Tertiary, K. L. (Laramie). (5433.)
- Red Deer River, township 38, range XXIV., west of the 4th initial meridian, district of Alberta, N.W.T.—Coll., J. B. Tyrrell, 1884.—Cretaceous-Tertiary, K. L. (Laramie). (5434.)
- Twelve miles above Prairie Island, Bow River, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1881.—Cretaceous, K. (2137.)
- Eight miles above Grassy Island, Bow River, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1881.—Cretaceous, K. (2138.)
- Kanamuskis or Rapid River, near its confluence with the Bow River, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1881.—Cretaceous-Tertiary, K. L. (Laramie). (2144.)
- Coal Banks, Belly River, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1881.—Cretaceous, K. (2145.)
- North-east angle of Driftwood Bend, Belly River, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1881.—Cretaceous, K. (2142.)
- Three miles south of Big Island, Belly River, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1881.—Cretaceous, K. (2143.)
- Mill Creek, four miles above the mill, Old Man River, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1881.—Cretaceous K. or Cretaceous-Tertiary, K. L. (Laramie). (2139.)

Table case  
46.—  
Continued.

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
IRON ORES—*Continued.***Siderite or Spathic Iron, and Varieties of the same—Continued.**

Table-case 46.— <i>Continued.</i>	<b>Clay iron-stone.</b> —Smoky River, seventeen miles above Little Smoky River, N.W.T.—Coll., G. M. Dawson, 1880.—Cretaceous, K. (2136.)
	— Quesnel, B.C.—Coll., G. M. Dawson.—Tertiary, L. (2096.)
	— Baynes Sound mine, Comox, Vancouver Island, B.C.—Coll., J. Richardson, 1872.—Cretaceous, K. (2088.)
	— Cowgitz, Skidegate Inlet, Queen Charlotte Islands, B.C.—Coll., J. Richardson, 1872.—Cretaceous, K. (2080.)
	— Nicholson's tunnel, Cowgitz, Skidegate Inlet, Queen Charlotte Islands, B.C.—Coll., J. Richardson, 1872.—Cretaceous, K. (2081.)
	— Coal mine, Skidegate Inlet, Queen Charlotte Islands, B.C.—Coll., J. Richardson, 1872.—Cretaceous, K. (2084.)
	— Queen Charlotte Islands, B.C.—Coll., J. Richardson, 1872.—Cretaceous, K. (2087.)

**Ilmenite or Titanic Iron.**

Upright table-case 33.	<b>Titanic iron ore.</b> —Rapid River, Bay of Seven Islands, Saguenay county, Q.—Coll., T. Sterry Hunt, 1868.—Laurentian, A. (2045.)
	— (with rutile).—St. Urbain, Bay St. Paul, Charlevoix county, Q.—Laurentian, A. (2035.)
	— St. Urbain, Bay St. Paul, Charlevoix county, Q.—Laurentian, A. (2044.)
	— St. Irénée, seigniory of Malbaie, Charlevoix county, Q.—Laurentian, A. (4640.)
	— Château Richer, Montmorency county, Q.—Coll., W. E. Logan, 1852.—Laurentian, A. (2036.)
	— St. Julien, township of Rawdon, Montcalm county, Q.—Laurentian, A. (2039.)
	— Lot 7, range I. of Wexford, Terrebonne county, Q.—Laurentian, A. (2123.)
	— Thirty miles from St. Jérôme, Terrebonne county, Q.—Laurentian, A.—(2034.)
	— Lot 1, range III. of Brome, Brome county, Q.—Pre-Cambrian, A. (2040.)
	— Lot 1, range I. of Brome, Brome county, Q.—Pre-Cambrian, A. (2041.)
	— Lot 2, range III. of Brome, Brome county, Q.—Pre-Cambrian, A. (2042.)
	— Lot 3, range VII. of Sutton, Brome county, Q.—Pre-Cambrian, A. (3660.)
	— Lot 6, range IX. of Sutton, Brome county, Q.—Pre-Cambrian, A. (2043.)
	— Lot 7, range IX. of Sutton, Brome county, Q.—Pre-Cambrian, A. (2046.)

Specimens of iron ore from some of the more important deposits are shown in upright wing-cases 4 and 5.

DISTRIBUTION OF  
Magnetite.

of the same—Continued.

above Little Smoky River  
son, 1880.—Cretaceous, E

—Tertiary, L. (2096.)

over Island, B.C.—Coll.,  
, K. (2088.)Charlotte Islands, B.C.—Coll.,  
, K. (2080.)ate Inlet, Queen Charlotte I.  
rdson, 1872.—Cretaceous, ECharlotte Islands, B.C.—Coll.,  
ons, K. (2084.)

H., J. Richardson, 1872.—C

## Iron.

Islands, Saguenay county, Q.  
—Laurentian, A. (2045.)

Paul, Charlevoix county, Q.

ix county, Q.—Laurentian,

voix county, Q.—Laurentian,

ty, Q.—Coll., W. E. Logan,  
)

tealm county, Q.—Laurentian,

bonne county, Q.—Laurentian,

erebonne county, Q.—Laurentian,

ounty, Q.—Pre-Cambrian,

ounty, Q.—Pre-Cambrian,

ounty, Q.—Pre-Cambrian,

ounty, Q.—Pre-Cambrian,

ounty, Q.—Pre-Cambrian,

e more important depos

MINERAL ASSOCIATIONS OF MAGNETITE, HEMATITE  
AND LIMONITE.

## Magnetite in association with Titaniferous Iron.

Iron sand.—East side of St. John River, Mingan, seigniorly of Mingan, Saguenay  
county, Q. (1980.)— Amherst Island, Magdalen Islands, Q.—Coll., J. Richardson, 1881.  
(1444.)

— Bersimis, Saguenay county, Q. (1982.)

— Portneuf, seigniorly of Mille Vaches, Saguenay county, Q. (1983.)

— Moisie, Saguenay county, Q. (1984.)

— Moisie, Saguenay county, Q.—(washed). (1985.)

— Batiscan, Champlain county, Q. (1981.)

— Hanlan Island, Toronto Bay, York county, O. (2117.)

— First Fall, Little Whale River, east coast of Hudson Bay.—Coll.,  
R. Bell, 1877. (2118.)Magnetite, titaniferous.—St. François, three miles north-east of the Chaudière  
River and half a mile from St. Joseph, Beauce  
county, Q.—Cambrian, C. (1967.)— Lot 23, range VII. of Shawenegan, St. Maurice county,  
Q.—Coll., R. W. Ellis, 1880.—Laurentian, A. (3648.)— East half of lot 6, range X. of Fitzroy, Carleton county,  
O.—Laurentian, A. (2119.)— East half of lot 6, range X. of Fitzroy, Carleton county,  
O.—Laurentian, A. (2121.)— Lot 2 or 3, range XII. of Fitzroy, Carleton county, O.—  
Coll., H. G. Vennor.—Laurentian, A. (2122.)— West corner of lot 5, range XII. of Fitzroy, Carleton  
county, O.—Laurentian, A. (2120.)— Silver Lake, South Sherbrooke, Lanark county, O.—  
Coll., H. G. Vennor, 1874.—Laurentian, A. (1938.)— with pyrite.—Chaffey mine, lot 26, range VI. of South  
Crosby, Lanark county, O.—Coll., B. J. Harrington,  
1873.—Laurentian, A. (1963.)— Chaffey mine, lot 26, range VI. of South Crosby, Lan-  
ark county, O.—Coll., B. J. Harrington, 1883.—  
Laurentian, A. (1964.)— Yankee mine, South Crosby, Lanark county, O.—Coll.,  
B. J. Harrington, 1873.—Laurentian, A. (1970.)— Foley mine, lot 10, range VIII. of Bathurst, Lanark  
county, O.—Coll., B. J. Harrington, 1873.—Laur-  
entian, A. (1926.)— with calcite, apatite and mica.—Foley mine, lot 10,  
range VIII. of Bathurst, Lanark county, O.—Coll.,  
B. J. Harrington, 1873.—Laurentian, A. (1937.)— with apatite and calcite.—Foley mine, lot 10, range  
VIII. of Bathurst, Lanark county, O.—Coll., B.  
J. Harrington, 1873.—Laurentian, A. (1957.)— with apatite.—McVeigh lot, lot 11, range VIII. of  
Bathurst, Lanark county, O.—Coll., B. J. Har-  
rington, 1873.—Laurentian, A. (1925.)— with calcite.—McVeigh lot, lot 11, range VIII. of  
Bathurst, Lanark county, O.—Coll., B. J. Har-  
rington, 1873.—Laurentian, A. (1927.)— with hornblende.—McVeigh lot, lot 11, range VIII. of  
Bathurst, Lanark county, O.—Coll., B. J. Har-  
rington, 1873.—Laurentian, A. (1933.)Upright  
table-case  
33.—  
Continued.Upright  
table-case  
34.



**MINERAL ASSOCIATIONS OF MAGNETITE, HEMATITE  
AND LIMONITE—Continued.**

**Magnetite, mineral associations of.**

- Upright  
table-case  
34.—  
*Continued.*
- Magnetite**, in chloritic schist.—Lot 6, range VI. of Sutton, Brome county, Q.—Pre-Cambrian, B? (1950.)
- and hematite.—Lot 7, range V. of Leeds, Megantic county, Q.—Pre-Cambrian, B? (1965.)
- and garnet.—Lot 3, range V. of Grenville, Argenteuil county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1941.)
- with hematite, pyrite, graphite and steatite.—Forsyth mine, lot 11, range VII. of Hull, Ottawa county, Q.—Laurentian, A. (1904.)
- with hematite and graphite (red ore).—Forsyth mine, lot 11, range VII. of Hull, Ottawa county, Q.—Laurentian, A. (1905.)
- with graphite and hornblende.—Forsyth mine, lot 11, range VII. of Hull, Ottawa county, Q.—Laurentian, A. (1910.)
- Mica**, calcite, pyroxene and graphite.—Baldwin mine, lot 13, range VI. of Hull, Ottawa county, Q.—Coll., B. J. Harrington, 1880.—Laurentian, A. (1907.)
- Magnetite**, with graphite.—Lots 39 and 40, range II. of Cameron, Ottawa county, Q.—Coll., H. G. Vemor, 1876.—Laurentian, A. (2114.)
- with orthoclase and epidote.—Bristol mine, lot 21, range II. of Bristol, Pontiac county, Q.—Coll., S. Barlow, 1891.—Laurentian, A. (2723.)
- with mica schist.—Lot 22, range II. of Bristol, Pontiac county, Q.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1912.)
- and pyrite.—Wilbur mine, lot 4, range XII. of Lavant, Lanark county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5624.)
- Hornblende** and pyrite.—Fournier mine, lot 14, range I. of South Sherbrooke, Lanark county, O.—Coll. B. J. Harrington, 1873.—Laurentian, A. (4641.)
- Magnetite**, feldspar and hornblende.—Fournier mine, lot 14, range I. of South Sherbrooke, Lanark county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1928.)
- Hornblende** and mica.—Fournier mine, lot 14, range I. of South Sherbrooke, Lanark county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1929.)
- Diorite**.—Fournier mine, lot 14, range I. of South Sherbrooke, Lanark county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1932.)
- Magnetite**, with hornblende and mica.—Fournier mine, lot 14, range I. of South Sherbrooke, Lanark county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1961.)
- Upright  
table-case  
35.
- Hornblende**, with magnetite.—Bygrove mine, lot 3, range I. of South Sherbrooke, Lanark county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1939.)
- Labradorite rock**, with magnetite.—Chaffey mine, lot 26, range VI. of South Crosby, Leeds county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1962.)
- Serpentine** and calcite.—Chaffey mine, lot 26, range VI. of South Crosby, Leeds county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1978.)
- Labradorite rock**.—Yankee mine, South Crosby, Leeds county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1972.)
- Magnetite**, with chalcopyrite.—Lot 7, range II. of Escott, Leeds county, O.—Coll., A. Murray, 1851.—Laurentian, A. (1949.)

**MINERAL ASSOCIATIONS OF MAGNETITE, HEMATITE  
AND LIMONITE—Continued.**

**Magnetite, mineral associations of—Continued.**

- Hornblende**, with magnetite.—Howse mine, lot 4, range I. of Bedford, Frontenac county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1973.)
- Gneiss**.—Howse mine, lot 4, range I. of Bedford, Frontenac county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1975.)
- Magnetite**, with pyroxene.—Howse mine, lot 4, range I. of Bedford, Frontenac county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1977.)
- with serpentine.—Thirty Island Lake, lot 6, range III. of Bedford, Frontenac county, O.—Coll., C. W. Willmott, 1883.—Laurentian, A. (3659.)
- Serpentine** and calcite.—Thirty Island Lake, lot 6, range III. of Bedford, Frontenac county, O.—Coll., C. W. Willmott, 1883.—Laurentian, A. (4605.)
- Magnetite**, with steatite.—Lot 3, range V. of Elzevir, Hastings county, O.—Coll., H. G. Vennor, 1872.—Laurentian, A. (1943.)
- with mica.—Seymour ore bed, lot 11, range V. of Madoc, Hastings county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1920.)
- with actinolite.—Seymour ore bed, lot 11, range V. of Madoc, Hastings county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1922.)
- with uran ochre.—Seymour ore bed, lot 11, range V. of Madoc, Hastings county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1923.)
- with actinolite and steatite.—Seymour ore bed, lot 11, range V. of Madoc, Hastings county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1924.)
- with vein of quartz and actinolite.—Seymour ore bed, lot 11, range V. of Madoc, Hastings county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1971.)
- with hematite.—Cook and Thompson mine, lot 15, range V. of Madoc, Hastings county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5717.)
- with hematite.—Moore mine, lot 17, range V. of Madoc, Hastings county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5594.)
- with fluorite and pyrite.—Lot 26, range VIII. of Marmora, Hastings county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1986.)
- with spathic iron and chalcopyrite.—Lot 6, range VIII. of Marmora, Hastings county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1987.)
- with pyrite and chalcopyrite.—Lot 6, range VIII. of Marmora, Hastings county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1988.)
- with felspar.—Lot 6, range VIII. of Marmora, Hastings county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1989.)
- with pyroxene.—Big ore bed, lot 8, range I. of Belmont, Peterborough county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1915.)
- with serpentine.—Big ore bed, lot 8, range I. of Belmont, Peterborough county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1916.)

Upright  
table-case  
35.—  
*Continued.*

MINERAL ASSOCIATIONS OF MAGNETITE, HEMATITE  
AND LIMONITE—*Continued.*

**Magnetite, mineral associations of—Continued.**

- Upright  
table-case  
35.—  
*Continued.*
- Magnetite.** with pyrite.—Big ore bed, lot 8, range I. of Belmont, Peterborough county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1918.)
- Asbestos.**—Big ore bed, lot 8, range I. of Belmont, Peterborough county, O.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1919.)
- Magnetite** with jasper.—Batchelwahnung Bay, Lake Superior, O.—Coll., R. Bell, 1860.—Huronian, B. (2115.)
- pyrite and jasper.—Batchelwahnung Bay, Lake Superior, O.—Coll., R. Bell, 1860.—Huronian, B. (2116.)

**Hematite, mineral associations of.**

- Upright  
table-case  
36.
- Göthite,** hematite and calcite.—Mouth of the Shubenacadie River, Colchester county, N.S.—Coll., B. J. Harrington, 1873.—Carboniferous, G 1. (2004.)
- Hematite** and calcite.—Mouth of the Shubenacadie River, Colchester county, N.S.—Coll., B. J. Harrington, 1873.—Carboniferous, G 1. (2013.)
- Barite,** calcite and hematite.—Mouth of the Shubenacadie River, Colchester county, N.S.—Coll., B. J. Harrington, 1873.—Carboniferous, G 1. (2015.)
- Oxide of manganese.**—Area 46, East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873. (2057.)
- Specular iron ore** with pyrite.—Area 100, East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873.—Silurian, E. (2001.)
- Slate** with hematite.—Area 101, East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873.—Silurian, E. (2011.)
- Ankerite.**—Area 101, near Welsters, East River, Pictou county, N.S.—Coll., B. J. Harrington, 1873.—Silurian, E. (5794.)
- Calcite.**—Peter Totten lot, Acadia Mines, Londonderry, Colchester county, N.S.—Coll., B. J. Harrington, 1873.—Cambro-Silurian, D. (2021.)
- Specular iron ore** and limonite.—Martin's Brook, Acadia Mines, Londonderry Colchester county, N.S.—Cambro-Silurian, D. (2016.)
- Ankerite.**—Acadia Mines, Londonderry, Colchester county, N.S.—Coll., B. J. Harrington, 1873.—Cambro-Silurian, D. (2093.)
- with barite, calcite and micaceous iron ore.—New Mines, Londonderry, Colchester county, N.S.—Coll., A. E. Barlow, 1884.—Cambro-Silurian, D. (4858.)
- Hematite** and limonite.—Near Clifton (formerly Old Barns), Colchester county, N.S.—Coll., B. J. Harrington, 1873.—Carboniferous, G (4642.)
- Specular iron ore,** with orthoclase.—Haycock mine, lot 28, range VI. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1991.)
- with orthoclase, fluorite and calcite.—Haycock mine, lot 28, range VI. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1873.—Laurentian, A. (1992.)
- with calcite and pyroxene.—Haycock mine, lot 28, range VI. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1873.—Laurentian, A. (2000.)
- penetrated by crystals of pyroxene.—Haycock mine, lot 28, range VI. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1873.—Laurentian, A. (2023.)

**NETITE, HEMATITE**

used.

of—Continued.

nge I. of Belmont, Peter  
J. Harrington, 1873., Peterborough county, O.—  
Laurentian, A. (1919.)Lake Superior, O.—Coll., B.  
J. (1915.)Bay, Lake Superior, O.—Coll.,  
B. J. (2116.)

tions of.

benacadie River, Colchester  
county, 1873.—Carboniferous.die River, Colchester county,  
1873.—Carboniferous, G. I.benacadie River, Colchester  
county, 1873.—Carboniferous.River, Pietou county, N.S.—  
Silurian, E. (2001.)on county, N.S.—Coll., B. J.  
(2011.), Pietou county, N.S.—Coll.,  
B. J. (5794.)erry, Colchester county, N.S.—  
Cambro-Silurian, D. (2021.)Acadia Mines, Londonderry,  
New Brunswick, D. (2016.)er county, N.S.—Coll., B. J.  
(2093.)on ore.—New Mines, London-  
derry, Coll., A. E. Barlow, 1884.—Old Barns), Colchester county,  
1873.—Carboniferous, G. I.e, lot 28, range VI. of Temple  
county, Q.—Coll., B. J. Harrington, 1873.—Haycock mine, lot 28, range VI.  
of Temple county, Q.—Coll., B. J. Harrington, 1873.—Haycock mine, lot 28, range VI.  
of Temple county, Q.—Coll., B. J. Harrington, 1873.—Haycock mine, lot 28, range VI.  
of Temple county, Q.—Coll., B. J. Harrington, 1873.—Haycock mine, lot 28, range VI.  
of Temple county, Q.—Coll., B. J. Harrington, 1873.—Haycock mine, lot 28, range VI.  
of Temple county, Q.—Coll., B. J. Harrington, 1873.—Haycock mine, lot 28, range VI.  
of Temple county, Q.—Coll., B. J. Harrington, 1873.—Haycock mine, lot 28, range VI.  
of Temple county, Q.—Coll., B. J. Harrington, 1873.**MINERAL ASSOCIATIONS OF MAGNETITE, HEMATITE  
AND LIMONITE—Continued.****Hematite, mineral associations of—Continued.****Specular iron ore**, with apatite.—Lot 10, range VII. of North Burgess, Lanark  
county, O.—Coll., H. G. Vennor, 1871.—Laurentian, A. (2002.)**Hematite** with magnetite.—Moore mine, lot 17, range V. of Madoc, Hastings  
county, O.—Coll., E. Coste, 1884.—Laurentian, A. (5595.)Upright  
table-case  
31.—  
Continued.**Limonite, mineral associations of.****Limonite**, with barite.—Fraser Saddle area (40), East River, Pietou county,  
N.S.—Coll., B. J. Harrington, 1873. (2049.)— with quartzite.—Martin's Brook, Acadia Mines, Londonderry, Col-  
chester county, N.S.—Coll., B. J. Harrington, 1873.—  
Cambro-Silurian, D. (2055.)**Iron ochre**.—Martin's Brook, Acadia Mines, Londonderry, Colchester county,  
N.S.—Coll., B. J. Harrington, 1873.—Cambro-Silurian, D.  
(2060.)**Ankerite**.—Acadia Mines, Londonderry, Colchester county, N.S.—Coll. B. J.  
Harrington, 1873.—Cambro-Silurian, D. (2095.)— with specular iron ore.—Martin's Brook, Acadia Mines, London-  
derry, Colchester county, N.S.—Coll., B. J. Harrington, 1873.  
—Cambro-Silurian, D. (2097.)**Quartzite** with veins of ankerite.—Martin's Brook, Acadia Mines, Londonderry,  
Colchester county, N.S.—Coll., B. J. Harrington, 1873.—  
Cambro-Silurian, D. (2098.)**COPPER ORES.****Copper, native.****Native copper**.—Mamainse (Naminse), Lake Superior, district of Algoma, O.  
—Coll., W. E. Logan, 1846.—Cambrian, C. I. (263.)— Nipigon Bay, Lake Superior, district of Thunder Bay, O.—Coll.,  
W. E. Logan, 1846.—Cambrian, C. I. (265.)— Ewart's location, Lake Superior, district of Thunder Bay, O.—Coll.,  
W. E. Logan, 1846.—Cambrian, C. I. (237.)— Michipicoten Island, Lake Superior, district of Thunder Bay, O.—  
Coll., W. E. Logan, 1846.—Cambrian, C. I. (285.)— in sandstone.—Michipicoten Island, Lake Superior, district of  
Thunder Bay, O.—Presented by W. W. Stuart, 1875.—  
Cambrian, C. I. (286.)

— nugget, found loose.—British Columbia. (179.)

— From an abandoned working on coast two miles east of the entrance  
to Sooke Harbour, Vancouver Island, B.C. (5253.)Upright  
wing-case  
6.**Chalcoite or Vitreous Copper Ore.****Vitreous copper ore** (Chalcoite).—From near Salmon River, parish of Alma,  
Albert county, N.B.—Presented by W. Davidson, 1875.—  
Pre-Cambrian, A. B. (145.)

COPPER ORES—*Continued.***Chalcoelite or Vitreous Copper Ore—Continued.**Upright  
wing-case  
6.—  
*Continued.*

- Vitreous copper ore**—Grand Manan Island, Charlotte county, N. B.—Coll. L. W. Bailey, 1870.—Triassic, II. (171.)
- From the "American" shaft, Harvey Hill mine, lot 17, range XV of Leeds, Megantic county, Q.—Coll., C. W. Willmott, 1889.—Pre-Cambrian, B? (173.)
- with purple copper ore.—"Nutbrown" shaft, lot 15, range XIV of Leeds, Megantic county, Q.—Coll., J. Richardson.—Pre-Cambrian, B? (239.)
- Lot H, range XIV. of Leeds, Megantic county, Q.—Coll., J. Richardson.—Pre-Cambrian, B? (251.)
- Lot 10, range VI. of Halifax, Megantic county, Q.—Pre-Cambrian, B? (215.)

**Bornite or Purple Copper Ore.**

- Purple copper ore (bornite)**—Adam's Island, Passamaquoddy Bay, Charlotte county, N. B.—Coll., L. W. Bailey, 1870.—Pre-Cambrian, A. B. (278.)
- Lot 1, range I. of Wendover, Drummond county, Q.—Coll., J. Richardson, 1865.—Cambrian, C. (178.)
- Lot 23, range III. of Roxton, Shefford county, Q.—Coll., J. Richardson, 1863.—Cambrian, C. (205.)
- with vitreous copper ore.—Lots 1, 2 and 3, range Ste. Marguerite-seigniory of St. Giles, Lotbinière county, Q.—Coll., J. Richardson, 1866.—Cambrian, C. (217.)
- in steatite.—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Coll., J. Richardson.—Pre-Cambrian, B? (245.)
- with quartz, in dolomite.—Harvey Hill mine, lot 17, range XV. Leeds, Megantic county, Q.—Pre-Cambrian, B? (252.)
- with copper pyrites.—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Pre-Cambrian, B? (253.)
- Acton mine, lot 32, range III. of Acton, Bagot county, Q.—Coll., J. Richardson, 1864.—Cambrian, C. (208.)
- in limestone and chert conglomerate.—Acton mine, lot 32, range III. of Acton, Bagot county, Q.—Cambrian, C. (256.)
- Lot 33, range IV. of Acton, Bagot county, Q.—Coll., J. Richardson, 1865.—Cambrian, C. (211.)
- St. Francis mine, lot 25, range XII. of Cleveland, Richmond county, Q.—Coll., J. Richardson, 1862.—Pre-Cambrian, B. (230.)
- with copper pyrites.—Sweet's mine, lot 8, range X. of Sutter Brome county, Q.—Coll., J. Richardson, 1862.—Pre-Cambrian, B? (241.)
- with copper pyrites.—Bruce Mines, Lake Huron, district of Algoma, O.—Coll., R. Bell, 1860.—Huronian, B. (294.)
- Mamainse (Namainse), Lake Superior, district of Algoma, O.—Coll., R. Bell, 1876.—Cambrian, C 1. (262.)
- Mamainse (Namainse), Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (283.)
- with copper pyrites.—Near the head of Salmon Arm, Jarvis Inlet (between Jarvis Inlet and Howe Sound), B. C.—Coll., G. A. Dawson, 1875. (287.)

United.

Copper—Continued.

Charlotte county, N.B.—Coll. H. (171.)

Hill mine, lot 17, range XV. Q.—Coll., C. W. Willmott (171.)

" shaft, lot 15, range XIV. Q.—Coll., J. Richardson.—Pre-Cambrian.

Mégantic county, Q.—Coll., J. Richardson. (251.)

Mégantic county, Q.—Pre-Cambrian.

Copper Ore.

Massachusetts Bay, Charlotte County, 1870.—Pre-Cambrian.

Drummond county, Q.—Coll., J. Richardson. (178.)

Orford county, Q.—Coll., J. Richardson. (205.)

Lot 3, range Ste. Marguerite, Mégantic county, Q.—Coll., J. Richardson. (217.)

Lot 17, range XV. of Leeds, Q.—Coll., J. Richardson.—Pre-Cambrian.

Hill mine, lot 17, range XV. of Leeds, Q.—Coll., J. Richardson. (252.)

Hill mine, lot 17, range XV. of Leeds, Q.—Coll., J. Richardson. (253.)

Acton, Bagot county, Q.—Coll., J. Richardson. (208.)

Acton mine, lot 32, range XV. of Leeds, Q.—Coll., J. Richardson. (256.)

Acton mine, lot 32, range XV. of Leeds, Q.—Coll., J. Richardson. (257.)

Lot XII. of Cleveland, Richmond county, 1862.—Pre-Cambrian.

Lot 8, range X. of Sutton, Richmond county, 1862.—Pre-Cambrian.

Lake Huron, district of Algoma, B. (294.)

Superior, district of Algoma, Ontario, C 1. (262.)

Superior, district of Algoma, Ontario, C 1. (263.)

Head of Salmon Arm, Jarvis Island (Howe Sound), B.C.—Coll., G. S. (288.)

## COPPER ORES—Continued.

## Chalcopyrite or Copper Pyrites.

Copper pyrites (chalcopyrite).—Coxheath copper mine, Coxheath, Cape Breton county, N.S.—Presented by Isaac P. Gragg, manager, Eastern Development Company, 1886.—Pre-Cambrian, A.B. (5533.)

Polson's Lake, Antigonish county, N.S.—Presented by H. S. Poole, 1875.—Devonian, F. (257.)

with magnetic pyrites.—Lochaber Lake, Antigonish county, N.S.—Presented by James Hudson, 1875.—Devonian, F. (258.)

Bissonette's mine, lot 49, range XX. of Upton, Drummond county, Q.—Coll., J. Richardson.—Cambro-Silurian, D. (204.)

with purple copper ore.—Wickham mine, lot 15, range X. of Wickham, Drummond county, Q.—Coll., J. Richardson.—Cambrian, C. (206.)

Durham mine, lot 21, range VII. of Durham, Drummond county, Q.—Coll., J. Richardson, 1864.—Cambrian, C. (207.)

Lot 1, range I. of Wendover, Drummond county, Q.—Coll., J. Richardson.—Cambrian, C. (221.)

with purple ore.—Nicolet Branch mine, lot 28, range IV. of Ham, Wolfe county, Q.—Coll., J. Richardson, 1861.—Pre-Cambrian, B? (209.)

with iron pyrites.—Lot 22, range I. of Garthby, Wolfe county, Q.—Coll., J. Richardson, 1849.—Pre-Cambrian, B? (218.)

Harvey Hill mine, lot 17, range XV. of Leeds, Mégantic county, Q.—Coll., C. W. Willmott, 1882.—Pre-Cambrian, B? (170.)

Belvidere mine, lot 10, range IX. of Ascot, Sherbrooke county, Q.—Coll., J. Richardson, 1864.—Pre-Cambrian, B? (220.)

Lot 15, range VII. of Ascot, Sherbrooke county, Q.—Coll., J. Richardson.—Pre-Cambrian, B? (223.)

Ascot mine, Haskell Hill, west half of lot 8, range VIII. of Ascot, Sherbrooke county, Q.—Coll., J. Richardson, 1866.—Pre-Cambrian B? (234.)

Cupel mine, lot 4, range VIII. of Ascot, Sherbrooke county, Q.—Coll., J. Richardson, 1866.—Pre-Cambrian, B? (236.)

Lot 9, range XVIII. of Orford, Sherbrooke county, Q.—Coll., J. Richardson, 1866.—Cambrian, C. (224.)

with purple copper ore.—Black River mine, St. Flavien, Lotbinière county, Q.—Coll., V. E. Logan, 1861.—Cambrian, C. (212.)

Lot 2, range IV. of Brome, Brome county, Q.—Presented by W. W. Stuart, 1875.—Pre-Cambrian, B? (243.)

Huntingdon mine, lot 8, range VIII. of Bolton, Brome county, Q.—Coll., J. Richardson, 1863.—Cambrian, C. (249.)

East half of lot 14, range XI. of Beckwith, Lanark county, O.—Presented by J. L. McNeely, 1886.—Cambrian, C 2. (5336.)

Lot 6, range VII. of Lavant, Lanark county, O.—Coll., H. G. Vennor, 1873.—Laurentian, A. (279.)

Lot 2, range IX. of North Burgess, Lanark county, O.—Coll., H. G. Vennor, 1873.—Laurentian, A. (301.)

Lot 1, range V. of North Elmstley, Lanark county, O.—Coll., H. G. Vennor.—Laurentian, A. (250.)

Gananogue Lake, Leeds, Leeds county, Q.—Coll., A. Murray, 1850. Loose. (276.)

Lot 7, range II. of Escot, Leeds county, O.—Coll., A. Murray, 1850.—Laurentian, A. (288.)

Upright  
wing-case  
7.

## COPPER ORES—Continued.

## Chalcopyrite or Copper Pyrites—Continued.

- Upright wing-case  
7.—  
Continued.
- Copper pyrites**—West half of lot 2, range IX, of Palmerston, Frontenac county, O.—Presented by G. Oliver, 1875.—Laurentian, A. (308.)
- Murray mine, lot 11, range V. of McKim, district of Nipissing, O.—Coll., A. R. C. Selwyn, 1884.—Huronian, B. (5062.)
- Worthington mine, lot 2, range II. of Drury, district of Algoma, O.—Coll., A. E. Barlow, 1891.—Huronian, B. (5063.)
- with magnetic pyrites.—Copper Cliff mine, lot 12 range II. of McKim, district of Nipissing, O.—Presented by W. C. Van Horne, 1887.—Huronian, B. (5418.)
- Evan's mine, lot 1, range I. of Snider, district of Algoma, O.—Coll., A. R. C. Selwyn, 1888.—Huronian, B. (5710.)
- Bruce mines, Lake Huron, district of Algoma, O.—Coll., R. Bell, 1860.—Huronian, B. (5426.)
- Wallace mining location, about one mile west of the mouth of Whitefish River, Lake Huron, district of Algoma, O.—Coll., R. Bell, 1860.—Huronian, B. (298.)
- Huron Copper Bay mining location, Lake Huron, district of Algoma, O.—Coll., R. Bell, 1860.—Huronian, B. (293.)
- Rankin mine, eastern shaft, Emerald mining location, Root River, district of Algoma, O.—Coll., A. Murray, 1860.—Huronian, B. (291.)
- Rankin mine, western shaft, Emerald mining location, Root River, district of Algoma, O.—Coll., A. Murray, 1860.—Huronian, B. (299.)
- Lot A, north side of Echo Lake, district of Algoma, O.—Presented by G. F. Austin, 1882.—Huronian, B. (300.)
- Keating's location, Lake Huron, district of Algoma, O.—Coll., A. Murray, 1847.—Huronian, B. (303.)
- Wellington mine, Lake Huron, district of Algoma, O.—Coll., R. Bell, 1860.—Huronian, B. (307.)
- Portlock Harbour, Lake Huron, district of Algoma, O.—A. Murray, 1860.—Huronian, B. (971.)
- Pointe aux Mines, Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (259.)
- Mamainse (Namainse), Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C. (273.)
- McKellar's mine, about a mile and a half north-west of the mouth of Little Pic River, Lake Superior, district of Thunder Bay, O.—Coll., R. Bell, 1875.—Huronian, B. (99.)
- with iron pyrites.—Copper claim opposite 49 Creek, Kootanae River, B.C.—Presented by J. A. Mara, 1890. (5261.)
- Malaspina mine, north-east side of Texada Island, B.C.—Coll., T. M. Dawson, 1885. (5279.)

## SPECIMENS ILLUSTRATING THE DISTRIBUTION OF COPPER ORES.

## Copper, native.

- Table-case  
39. **Native copper.**—Two Islands, Cumberland county, N.S.—Coll., Scott Barlow, 1875.—Triassic, H. (3676.)
- Horseshoe Cove, Cape d'Or, Cumberland county, N.S.—Coll., W. Willimott, 1888.—Triassic H. (5655.)

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
COPPER ORES—Continued.

## Copper, native—Continued.

- Native copper**—Bennet's Brook, east of Horseshoe Cove, Cumberland county, N.S.—Coll., C. W. Willimott, 1888.—Triassic, H.—(5660.) Table-case 39.—  
— Mamainse (Nainainse), Lake Superior, district of Algoma, O.—Continued.  
— Coll., W. E. Logan, 1846.—Cambrian, C 1. (3414.)  
— in amygdaloid.—Mamainse (Nainainse), Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (3415.)  
— in volcanic ash.—Michipicoten Island, Lake Superior, district of Thunder Bay, O.—Coll., A. R. C. Selwyn, 1883. (3595.)  
— Eleven mile Creek, above Lillooet, east side of Fraser River, B.C.—Presented by Mr. Sones, 1890. (5228.)  
— from sluice boxes.—Fraser River, a few miles above Stein Creek, B.C.—Presented by J. W. Mackay, 1890. (5338.)  
— from placer mines, Thibert's Creek, Cassiar, B.C.—Coll., G. M. Dawson, 1885. (5557.)  
— from placer mines near Vermilion Forks, Similkameen River, B.C.—Coll., G. M. Dawson, 1888. (5782.)  
— from an abandoned working near Sooke, Vancouver Island, B.C.—(5254.)

## Chalcoite or Vitreous Copper Ore.

- Vitreous copper ore (chalcoite)**.—Mianidie, Cumberland county, N.S.—Coll., S. Barlow, 1875.—Carboniferous, G. (4634.)  
— Pugwash River, Cumberland county, N.S.—Presented by E. A. Black, 1884.—Carboniferous, G. (4821.)  
— French River, New Annan, four miles south of Tatamagouche, Colchester county, N.S.—Coll., R. W. Eells, 1884.—Carboniferous, G. (1209.)  
— Alma, Albert county, N.B.—Presented by W. Davidson, 1875.—Pre-Cambrian, A.B. (3572.)  
— McKinley's mine, Alma, Albert county, N.B.—Coll., R. W. Eells, 1877.—Pre-Cambrian, A.B. (3593.)  
— Dorchester, Westmoreland county, N.B.—Presented by J. W. Revere.—Carboniferous, G. (3581.)  
— with green carbonate and coal.—Colonial copper mine, Dorchester, Westmoreland county, N.B.—Coll., R. W. Eells, 1881.—Carboniferous, G. (3677.)  
— with green carbonate, in conglomerate.—Colonial copper mine, Dorchester, Westmoreland county, N.B.—Coll., R. W. Eells, 1884.—Carboniferous, G. (3680.)  
— with green carbonate.—Grand Manan Island, Charlotte county, N.B.—L. W. Bailey, 1870.—Triassic, H. (3587.)  
— Simpson's Island, Passamaquoddy Bay, Charlotte county, N.B.—Coll., L. W. Bailey, 1870.—Pre-Cambrian, A.B. (3583.)  
— St. Caroline mine, River Etchemin, St. Clair, Dorchester county, Q.—Coll., A. R. C. Selwyn, 1877.—Cambrian, C. (4631.)  
— Lots 1, 2 and 3, range Ste. Marguerite, Lotbinière county, Q.—Coll., J. Richardson, 1866.—Pre-Cambrian, B? (3573.)  
— Lot 10, range VI, of Halifax, Megantic county, Q.—Coll., J. Richardson, 1860.—Pre-Cambrian, B? (3574.)

## DISTRIBUTION OF



SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
COPPER ORES—Continued.**Chalcoite or Vitreous Copper Ore**—Continued.

Table-case 39.— Continued.	<p><b>Vitreous copper ore</b>—American shaft, Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Coll., C. W. Willimott, 1889.—Pre-Cambrian, B? (3649.)</p> <p>— Lot 18, range XV. of Leeds, Megantic county, Q.—Coll., C. W. Willimott, 1882.—Pre-Cambrian, B? (3570.)</p> <p>— Lot 15, range XIV. of Leeds, Megantic county, Q.—Pre-Cambrian, B? (3571.)</p> <p>— argenteriferous.—Mamainse (Namainse), Lake Superior, district of Algoma, O.—Presented by W. W. Stuart, 1882.—Cambrian, C 1. (3576.)</p> <p>— Mamainse (Namainse), Lake Superior, district of Algoma, O.—Presented by H. R. Fletcher, 1869.—Cambrian, C 1. (3577.)</p> <p>— with blue and green carbonate.—First or southern shaft, Mamainse (Namainse), Lake Superior, district of Algoma, O.—Coll. W. E. Logan, 1860.—Cambrian, C 1. (3675.)</p> <p>— Pointe aux Mines, Lake Superior, district of Algoma, O.—Coll. W. E. Logan, 1846.—Cambrian, C 1. (3513.)</p> <p>— with purple copper ore and green and blue carbonate.—Prince's location, Spar Island, Lake Superior, district of Thunder Bay, O.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (3575.)</p> <p>— argenteriferous.—Spar Island, Lake Superior, district of Thunder Bay, O.—Cambrian, C 1. (3578.)</p> <p>— St. Ignace Island, Lake Superior, district of Thunder Bay, O.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (3579.)</p> <p>— with native silver.—Harrison's location, St. Ignace Island, Lake Superior, district of Thunder Bay, O.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (3590.)</p> <p>— Sheppard's location, east end of St. Ignace Island, Lake Superior, district of Thunder Bay, O.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (4633.)</p> <p>— Point Porphyry, Lake Superior, district of Thunder Bay, O.—Coll. W. E. Logan, 1846.—Cambrian, C 1. (3596.)</p> <p>— with purple copper ore and blue and green carbonate.—Bris Range, opposite lower end of Upper Columbia Lake, Rocky Mountains, B.C. (5083.)</p> <p>— with copper pyrites and green carbonate.—One mile north-west Silver City, Rocky Mountains, district of Alberta, N.W.T.—Presented by D. B. Woodworth. (5138.)</p>
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**Bornite or Purple Copper Ore.**

Table-case 40.	<p><b>Purple copper ore</b> (bornite).—Adam's Island, Charlotte county, N.B.—Coll. L. W. Bailey, 1870.—Pre-Cambrian, A.B. (3557.)</p> <p>— Waters' mine, Alma, Albert county, N.B.—Coll., R. W. Ellis, 1870.—Pre-Cambrian, A.B. (3597.)</p> <p>— Indian Island, north side of the entrance of Hamilton Inlet, Labrador.—Coll., R. Bell, 1884. (3585.)</p> <p>— Lot 2, range IV. of Inverness, Megantic county, Q.—Coll., J. B. Ardson, 1847.—Pre-Cambrian, B? (3558.)</p> <p>— Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Pre-Cambrian, B? (3569.)</p>
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DISTRIBUTION OF  
COPPER ORES—*Continued.***Iron Ore—Continued.**

Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Coll., C. W. Willimott, 1882. (3571.)

— with copper pyrites.—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Coll., C. W. Willimott, 1882. (3571.)

— in mica schist.—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Coll., C. W. Willimott, 1882. (3571.)

— Nicolet Branch mine, lot 28, range IV. of Ham, Wolfe county, Q.—Coll., W. E. Logan, 1862.—Pre-Cambrian, B? (3560.)

— Lot 25, range XII. of Cleveland, Richmond county, Q.—Coll., J. Richardson, 1863.—Pre-Cambrian, B? (3512.)

— Lot 33, range IV. of Acton, Bagot county, Q.—Coll., J. Richardson, 1863.—Cambrian, C. (3564.)

— Lot 8, range X. of Sutton, Bromes county, Q.—Coll., J. Richardson, 1863.—Pre-Cambrian, B? (3558.)

— Galt's mine, Orford, Sherbrooke county, Q.—Coll., C. W. Willimott, 1882.—Cambrian, C. (3561.)

— Bruce Mines, Lake Huron, district of Algoma, O.—Coll., R. Bell, 1860.—Huronian, B. (3567.)

— Keating's location, Lake Huron, district of Algoma, O.—Coll., A. Murray, 1847.—Huronian, B. (4629.)

— Begley mine, north shore of Batchewahung Bay, Lake Superior, district of Algoma, O.—Coll., T. Macfarlane, 1865.—Huronian, B. (3565.)

— Township of Tupper, district of Algoma, O.—Huronian, B. (4632.)

— with green carbonate.—Wilson's location, about one mile north-east of Batchewahung Bay, Lake Superior, district of Algoma, O.—Huronian, B. (4635.)

— Mamainse (Namainse), Lake Superior, district of Algoma, O.—Coll., R. Bell, 1870.—Cambrian, C 1. (3568.)

— First or southern shaft, Mamainse (Namainse), Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1860.—Cambrian, C 1. (3580.)

— Pointe aux Mines, Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C. (3584.)

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
COPPER ORES—*Continued.***Hornite or Purple Copper Ore—Continued.**

- Purple copper ore**, with dolomite and quartz.—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Pre-Cambrian, B? (3671.)
- with copper pyrites.—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Coll., C. W. Willimott, 1882. (3555.)
- in mica schist.—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Pre-Cambrian, B? (3562.)
- Nicolet Branch mine, lot 28, range IV. of Ham, Wolfe county, Q.—Coll., W. E. Logan, 1862.—Pre-Cambrian, B? (3560.)
- Lot 25, range XII. of Cleveland, Richmond county, Q.—Coll., J. Richardson, 1863.—Pre-Cambrian, B? (3512.)
- Lot 33, range IV. of Acton, Bagot county, Q.—Coll., J. Richardson, 1863.—Cambrian, C. (3564.)
- Lot 8, range X. of Sutton, Bromes county, Q.—Coll., J. Richardson, 1863.—Pre-Cambrian, B? (3558.)
- Galt's mine, Orford, Sherbrooke county, Q.—Coll., C. W. Willimott, 1882.—Cambrian, C. (3561.)
- Bruce Mines, Lake Huron, district of Algoma, O.—Coll., R. Bell, 1860.—Huronian, B. (3567.)
- Keating's location, Lake Huron, district of Algoma, O.—Coll., A. Murray, 1847.—Huronian, B. (4629.)
- Begley mine, north shore of Batchewahung Bay, Lake Superior, district of Algoma, O.—Coll., T. Macfarlane, 1865.—Huronian, B. (3565.)
- Township of Tupper, district of Algoma, O.—Huronian, B. (4632.)
- with green carbonate.—Wilson's location, about one mile north-east of Batchewahung Bay, Lake Superior, district of Algoma, O.—Huronian, B. (4635.)
- Mamainse (Namainse), Lake Superior, district of Algoma, O.—Coll., R. Bell, 1870.—Cambrian, C 1. (3568.)
- First or southern shaft, Mamainse (Namainse), Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1860.—Cambrian, C 1. (3580.)
- Pointe aux Mines, Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C. (3584.)

Table-case  
40.—  
*Continued.*

**Iron Ore.**

Charlotte county, N.B.—Coll., A. B. (3557.)

— N.B.—Coll., R. W. Ellis, 1870. (3557.)

— France of Hamilton Inlet, Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C 1. (3596.)

— and green carbonate.—First or southern shaft, Mamainse (Namainse), Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1860.—Cambrian, C 1. (3580.)

— One mile north-west of Pointe aux Mines, Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C. (3584.)

**Tetrahedrite or Grey Copper.**

**Grey copper** (tetrahedrite).—Fraser River, left bank, twenty-five miles above Lytton, B.C.—Coll., G. M. Dawson, 1888. (5776.)

**Chalcopyrite or Copper Pyrites.**

**Copper pyrites** (chalcopyrite).—Coxheath copper mine, Coxheath, Cape Breton county, N.S.—Presented by Isaac P. Gragg, 1887.—Pre-Cambrian, A. B. (5539.)

— with specular iron ore.—Lochaber Lake, Antigonish county, N.S.—Coll., A. R. C. Selwyn, 1872.—Devonian, F. (3411.)

— with magnetic pyrites.—Lochaber Lake, Antigonish county, N.S.—Coll., A. R. C. Selwyn, 1872.—Devonian, F. (3420.)

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
COPPER ORES—Continued.

## Chalcopyrite or Copper Pyrites—Continued.

Table-case 40.— Continued.	Copper pyrites with spathic iron ore.—Polson's Lake, Antigonish county, N.S. Coll., A. R. C. Selwyn, 1872.—Devonian, F. (3419.)	
—	Goodfellow's mine, New Ireland, Albert county, N.B.—Coll., R. W. Ellis, 1881.—Pre-Cambrian, A. B. (3412.)	
—	Woodstock, Carleton county, N.B.—Coll., C. Robb, 1869. (3413.)	
—	Half a mile west of Crow Harbour Island, Charlotte county, N.B. Coll., L. W. Bailey, 1870.—Pre-Cambrian, A. B. (3588.)	
—	Vernon mine, St. Martin's, St. John county, N.B.—Coll., R. W. Ellis, 1877.—Pre-Cambrian, A. B. (3592.)	
—	Black River mine, St. Flavien, Lotbinière county, Q.—Coll., W. E. Logan, 1861.—Cambrian, C. (3426.)	
—	Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Coll., C. W. Willimott, 1882.—Pre-Cambrian, B? (4636.)	
—	in chloritoid schist.—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Pre-Cambrian, B? (3432.)	
—	with purple copper ore.—Harvey Hill mine, lot 17, range XV. of Leeds, Megantic county, Q.—Pre-Cambrian, B? (3559.)	
—	Nicolet Branch mine, lot 28, range IV. of Ham, Wolfe county, Q. Coll., W. E. Logan, 1862.—Pre-Cambrian, B? (3418.)	
—	with iron pyrites.—Lot 22, range I. of Gartldy, Wolfe county, Q.—Coll., J. Richardson, 1849.—Pre-Cambrian, B? (3423.)	
—	Lot 21, range VII. of Durham, Drummond county, Q.—Cambrian, C. (3430.)	
—	Lot 9, range X. of Warwick, Arthabaska county, Q.—Coll., J. Richardson, 1863.—Cambrian, C. (3594.)	
—	Lot 9, range XVIII. of Orford, Sherbrooke county, Q.—Coll., J. Richardson, 1866.—Cambrian, C. (3416.)	
—	Capel mine, south-east quarter of lot 4, range VIII. of Ascot, Sherbrooke county, Q.—Coll., J. Richardson, 1875.—Pre-Cambrian, B? (3417.)	
Table-case 41.	Sutfield mine, lot 3, range XI. of Ascot, Sherbrooke county, Q. Coll., C. W. Willimott, 1882.—Pre-Cambrian, B? (3433.)	
—	with grey copper.—Sutfield mine, lot 3, range XI. of Ascot, Sherbrooke county, Q.—Coll., C. W. Willimott, 1882.—Pre-Cambrian, B? (3434.)	
—	with grey copper.—Hartford mine, lot 3, range IX. of Ascot, Sherbrooke county, Q.—Coll., J. Richardson, 1876.—Pre-Cambrian, B? (3429.)	
—	with magnetic pyrites, apatite, molybdenite and spathic iron ore.—Lot 3, range VI. of Barford, Stanstead county, Q. Coll., W. E. Logan, 1847.—Cambro-Silurian, D. (3424.)	
—	Lot 27, range II. of Shefford, Shefford county, Q.—Coll., J. Richardson, 1866.—Cambrian, C. (3427.)	
—	Lot 2, range IV. of Brome, Brome county, Q.—Presented by W. W. Stuart, 1875.—Pre-Cambrian, B? (3431.)	
—	Huntingdon mine, Lot 8, range VIII. of Bolton, Brome county, Q.—Coll., J. Richardson, 1868.—Cambrian, C. (3650.)	
—	in graphitic shale.—Lot 32, range III. of Acton, Bagot county, Q.—Coll., J. Richardson, 1863.—Cambrian, C. (3678.)	
—	Lot 14, range XI. of Beekwith, Lanark county, O.—Presented by J. L. McNeely, 1886.—Cambrian, C 2. (5315.)	
—	Lot 1, range V. of North Elmsley, Lanark county, O.—Laurentian, A. (3437.)	

**DISTRIBUTION OF**  
*Continued.*

**SPECIMENS ILLUSTRATING THE DISTRIBUTION OF**  
**COPPER ORES—Continued.**

*Continued.*

**Chalcopyrite or Copper Pyrites—Continued.**

- Lake, Antigonish county, N.S.—Devonian, F. (3419.)  
 Albert county, N.B.—Coll., R. W. A. B. (3412.)  
 —Coll., C. Robb, 1869. (3413)  
 Island, Charlotte county, N.B.—Pre-Cambrian, A. B. (3588.)  
 In county, N.B.—Coll., R. W. A. B. (3592.)  
 biniere county, Q.—Coll., W. E. (3426.)  
 V. of Leeds, Megantic county, Q.—1882.—Pre-Cambrian, B? (4636)  
 mine, lot 17, range XV. of Leeds  
 ambrin, B? (3432.)  
 Hill mine, lot 17, range XV.—  
 Pre-Cambrian, B? (3559.)  
 IV. of Ham, Wolfe county, Q.—  
 Pre-Cambrian, B? (3418.)  
 I. of (partly), Wolfe county, Q.—  
 —Pre-Cambrian, B? (3423.)  
 ammond county, Q.—Cambrian  
 rthaska county, Q.—Coll., J.  
 an, C. (3594.)  
 herbrooke county, Q.—Coll., J.  
 an, C. (3416.)  
 lot 4, range VIII. of Ascot, She  
 J. Richardson, 1875. P  
 Ascot, Sherbrooke county, Q.—  
 32.—Pre-Cambrian, B? (3433.)  
 lot 3, range XI. of Ascot, She  
 C. W. Willimott, 1882. P  
 e, lot 3, range IX. of Ascot, She  
 J. Richardson, 1876.—Pre-C  
 polydenite and spathic iron ore  
 rd, Stanstead county, Q.—Ca  
 oro-Silurian, D. (3424.)  
 Shefford county, Q.—Coll.  
 an, C. (3427.)  
 e county, Q.—Presented by  
 mbrian, B? (3431.)  
 III. of Bolton, Brome county,  
 8.—Cambrian, C. (3650.)  
 e III. of Acton, Bagot county,  
 33.—Cambrian, C. (3678.)  
 anark county, O.—Presented  
 mbrian, C 2. (5315.)  
 y, Lanark county, O.—Laurentian
- Copper pyrites**—Lot 7, range II. of Escott, Leeds county, O.—Coll., A. Mur-  
 ray, 1850.—Laurentian, A. (3439.)  
 Lake, Hastings county, O.—Presented by W. Shanly, 1875.—  
 Laurentian, A. (3428.)  
 West half of lot 2, range IX. of Palmerston, Frontenac county, O.—  
 Presented by G. Oliver, 1875.—Laurentian, A. (3438.)  
 Palmerston, Frontenac county, O.—(Loose). (3673.)  
 Lots 14 and 15, range III. of South Canotto, Frontenac county, O.  
 Laurentian, A. (5582.)  
 Lot 7, range VI. of Belmont, Peterborough county, O.—Laurentian,  
 A. (248.)  
 Copper Cliff mine, lot 12, range II. of McKim, district of Nipissing,  
 O.—Coll., A. E. Barlow, 1890.—Huronian, B. (5956.)  
 Murray mine, lot 11, range V. of McKim, district of Nipissing, O.  
 —Coll., A. R. C. Selwyn, 1884.—Huronian, B. (4850.)  
 Lot 1, range VI. of Waters, district of Algoma, O.—Coll., R. Bell,  
 1887.—Huronian, B. (5398.)  
 Worthington mine, lot 2, range II. of Drury, district of Algoma, O.  
 —Coll., A. E. Barlow, 1890.—Huronian, B. (3548.)  
 with magnetic pyrites.—South half of lots 1 and 2, range II. of  
 Drury, district of Algoma, O.—Presented by F. C. Crean,  
 1885.—Huronian, B. (5064.)  
 with magnetic pyrites.—Vermilion mine, lot 6, range IV. of Deni-  
 son, district of Algoma, O.—Coll., A. E. Barlow, 1890.—  
 Huronian, B. (3582.)  
 with magnetic pyrites.—Lots 1 and 2, range III. of Nairn, district  
 of Algoma, O.—Coll., A. E. Barlow, 1890.—Huronian, B.  
 (3554.)  
 Spanish River, district of Algoma, O.—Coll., A. Murray, 1848.—  
 Huronian, B. (3436.)  
 Wallace mine, about one mile west of the mouth of Whitefish River,  
 district of Algoma, O.—Coll., R. Bell, 1860.—Huronian, B.  
 (3553.)  
 Straight Lake, south-east side, Moncrieff, district of Algoma, O.—  
 Presented by Isaac Moore, 1887.—Huronian, B. (5447.)  
 Falls at the head of Grand Portage, Mississagui River, district of  
 Algoma, O.—Coll., A. Murray, 1857.—Huronian, B. (4637.)  
 Huron Copper Bay location, Lake Huron, district of Algoma, O.—  
 Coll., R. Bell, 1860.—Huronian, B. (3440.)  
 Bruce Mines, Lake Huron, district of Algoma, O.—Coll., R. Bell,  
 1860. Huronian, B. (3441.)  
 with purple copper ore.—Bruce Mines, Lake Huron, district of  
 Algoma, O.—Coll., A. Murray, 1847.—Huronian, B. (3556.)  
 Wellington mine, Lake Huron, district of Algoma, O.—Coll., R.  
 Bell, 1875.—Huronian, B. (3422.)  
 Keating's location, Lake Huron, district of Algoma, O.—Coll., A.  
 Murray, 1847.—Huronian, B. (3435.)  
 Rankin mine, Emerald location, Root River, district of Algoma, O.  
 —Coll., A. Murray, 1860.—Huronian, B. (4638.)  
 Lot A, north side of Echo Lake, district of Algoma, O.—Presented  
 by G. F. Austin, 1880.—Huronian, B. (3549.)  
 Stobie's location, about two miles north-east of the head of Echo  
 Lake, district of Algoma, O.—Coll., G. F. Lount, 1876.—  
 Huronian, B. (4630.)

Table-case  
41.—  
Continued.

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
COPPER ORES—*Continued.***Chalcopyrite or Copper Pyrites**—*Continued.*

Table case 41.— <i>Continued</i>	<p><b>Copper pyrites</b>—Pointe aux Mines, Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C. I. (3425.)</p> <p>— with galena and zinc blend.—Pointe aux Mines, Lake Superior, district of Algoma, O.—Coll., W. E. Logan, 1846.—Cambrian, C. (3670.)</p> <p>— Little Pie River, Lake Superior, district of Thunder Bay, O.—Coll., R. Bell, 1875.—Huronian, B. (3551.)</p> <p>— Slate Falls, Slate River, district of Thunder Bay, O.—Cambrian, C. I. (3589.)</p> <p>— Prince's location, Spar Island, Lake Superior, district of Thunder Bay, O.—Coll., W. E. Logan, 1846.—Cambrian, C. I. (3552.)</p> <p>— Rat Portage, district of Rainy River, O.—Presented by F. Fooks, 1882.—Archean, A. B. (3550.)</p> <p>— British Columbia Copper Company's mine, South Similkameen River, east bank, six miles above the mouth of Whip-saw Creek, B. C. (5734.)</p> <p>— Malaspina mine, north-east side of Texada Island, B. C.—Coll., G. M. Dawson, 1885. (5278.)</p>
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Specimens of copper ore from the more important deposits are shown in upright wing-cases 6 and 7.

II.—MINERALS APPLICABLE TO CERTAIN CHEMICAL  
MANUFACTURES.

There having been no available case in which the minerals coming under this heading could be brought together, they have, as indicated below, been unavoidably distributed over several of the other cases.

**Apatite** (*phosphate of lime*).

Specimens of apatite from some of the more important deposits are shown in upright wing-case 27.

Specimens illustrating the distribution of apatite are shown in table-cases 34, and 35 (in part).

Mineral associations of apatite are shown in table-cases 35 (in part) and 36 and in upright table-cases 27 and 28.

**Arsenopyrite** (*sulph-arsenide of iron*).

Specimens of mispickel are shown in upright wing-case 3.

Specimens illustrating the distribution of arsenical pyrites are shown in upright table-case 25.

**Celestite** (*sulphate of strontia*).

Specimens of this mineral are shown in upright wing-case 20.

**Chromite iron ore** (*chromate of iron*).

Specimens of chromite from some of the more important localities of its occurrence are shown in upright wing-case 3.

Specimens illustrating the distribution of this ore are shown in upright table-case 31.

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III.—MI

Peat.—Is

Lignitife

Lignite.—

**Iron pyrites** (*bisulphide of iron*).

Specimens of pyrite are shown in upright wing-case 3.

Specimens illustrating the distribution of this ore of sulphur are shown in upright table-case 31.

**Magnesite** (*carbonate of magnesia*).

Specimens of magnesite are shown in upright wing-case 20.

**Manganese ores** (*oxides of manganese*).

Specimens of these ores from the more important localities of their occurrence, are shown in upright wing-case 4.

Specimens illustrating the distribution of the same are shown in upright table-case 31.

**Molybdenite** (*sulphide of molybdenum*).

Specimens of molybdenum ore are shown in upright wing-case 3.

Specimens illustrating the distribution of molybdenite are shown in upright table-case 31.

**Scheelite** (*tungstate of lime*).

Specimens of this mineral are shown in table-case 67 and upright table-case 44.

### III.—MINERALS USED IN THE PRODUCTION OF LIGHT AND HEAT.

#### COAL SERIES.

##### Peat.

- Peat.**—Island of Anticosti, Q.—Post-Tertiary, M 3. (Alluvium). (475.)  
 — St. Hubert, Chambly county, Q.—Post-Tertiary, M 3. (Alluvium). (476.)  
 — Lapigeonnière, Napierville, Chambly county, Q.—Post-Tertiary, M 3. (Alluvium). (477.)  
 — (1). Coke made from peat No. 477 in the charcoal kilns at Lapigeonnière, and used in a smelting trial at the Hull Iron Mines, Ottawa county, Q. (477a.)  
 — Ste. Brigide, Iberville county, Q.—Post-Tertiary, M 3. (Alluvium). (478.)  
 — St. Dominique, Bagot county, Q.—Post-Tertiary, M 3. (Alluvium). (479.)

Upright  
wing-case  
8.

##### Lignitified Wood.

- Lignitified wood.**—Swan River, township 37, range XXVI, west of the initial meridian, Manitoba.—Coll., J. B. Tyrrell, 1887.—Cretaceous, K. (Lower portion of Niobrara-Benton shales). (5545.)

##### Lignite.

- Lignite.**—Missinaibi River, nine miles above the mouth of Opazatika (Poplar) River, district of Algoma, O.—Coll., R. Bell, 1877.—Post-Tertiary, M 1. (3466.)

COAL SERIES—*Continued.*Lignite—*Continued.*

- Upright  
wing-case  
8.—  
*Continued.*
- Lignite**—Coal Brook, below Long Portage, Missinaibi River, district of Algoma, O.—Coll., R. Bell, 1877.—Post Tertiary, M. L. (3467.)
- Swan River, Manitoba.—Coll., J. W. Spencer, 1874.—Cretaceous, (123.)
- Turtle Mountain, section 12, township 1, range XXIV., west of the initial meridian, Manitoba.—Coll., A. R. C. Selwyn, 1890.—Cretaceo-Tertiary, K. L. (Laramie). (2481.)
- Sutherland's mine, Souris River, one mile west of La Roche Percée, at the junction of Short Creek and Souris River, township 1, range V., west of the 2nd initial meridian, district of Assiniboia, N. W. T. Seam 4'.—Coll., A. R. C. Selwyn, 1878.—Cretaceo-Tertiary, K. L. (Fort Union Laramie). (2577.)
- Porcupine Creek, district of Assiniboia, N. W. T. Lower part of 18 seam.—Coll., G. M. Dawson, 1873.—Cretaceo-Tertiary, K. L. (Fort Union Laramie). (3504.)
- Souris River, at Traders Road crossing—sixty-two miles west of Wood End, district of Assiniboia, N. W. T.—Coll., G. M. Dawson, 1873.—Cretaceo-Tertiary, K. L. (Fort Union Laramie). (3505.)
- Souris River, near Wood End Depot, district of Assiniboia, N. W. T. Seam 7'.—Coll., G. M. Dawson, 1873.—Cretaceo-Tertiary, K. L. (Fort Union, Laramie). (3507.)
- Short Creek, Souris Valley, district of Assiniboia, N. W. T. Lowest and 2' 3" seam.—Coll., G. M. Dawson, 1873.—Cretaceo-Tertiary, K. L. (Fort Union Laramie). (3508.)
- Great Valley, district of Assiniboia, N. W. T. Seam 5'.—Coll., G. M. Dawson, 1873.—Cretaceo-Tertiary, K. L. (Fort Union Laramie). (3500.)
- Souris Valley, district of Assiniboia, N. W. T. Seam 1'.—Coll., G. M. Dawson, 1873.—Cretaceo-Tertiary, K. L. (Fort Union Laramie). (3501.)
- Souris Valley, district of Assiniboia, N. W. T. Seam 1' 5".—Coll., G. M. Dawson, 1873.—Cretaceo-Tertiary, K. L. (Fort Union Laramie). (3502.)
- Souris Valley, district of Assiniboia, N. W. T. Seam 3' 2".—Coll., G. M. Dawson, 1873.—Cretaceo-Tertiary, K. L. (Fort Union Laramie). (3503.)
- Dirt Hills, about one hundred miles south-west of Fort Qu'Appelle, district of Assiniboia, N. W. T.—Coll., R. Bell, 1873.—Cretaceo-Tertiary, K. L. (Fort Union Laramie) (1018.)
- Dirt Hills, quarter way up East Bluff, district of Assiniboia, N. W. T. Seam 3'.—Coll., R. Bell, 1873.—Cretaceo-Tertiary, K. L. (Fort Union, Laramie). (1019.)
- Hay Flat, Wood Mountain, ten and a half miles east of Wood Mountain Post, district of Assiniboia, N. W. T. Seam 6'.—Coll., R. G. McConnell, 1884.—Cretaceo-Tertiary, K. L. (Laramie). (5113.)
- White Mud River, district of Assiniboia.—Coll., R. G. McConnell, 1883.—Tertiary, L. 1. (Eocene). (4906, 4907.)
- Ross Coulee, Irvine, at Cypress trail crossing, district of Assiniboia, N. W. T.—Coll., R. G. McConnell, 1881.—Cretaceous, K. (base of Pierre). (923.)
- Half a mile south of Irvine, district of Assiniboia, N. W. T.—Coll., R. G. McConnell, 1883.—Cretaceous, K. (base of Pierre). (4913.)

## COAL SERIES—Continued.

## Lignite—Continued.

- Lignite**—On branch of Willow Creek, six miles south-east from head of mountain, Cypress Hills, district of Assiniboia, N.W.T. Seam 4'.—Coll., R. G. McConnell, 1883.—Cretaceo-Tertiary, K-L (Laramie). (4914.)
- From the Saskatchewan Coal Mining and Transportation Company's mine, South Saskatchewan River, north side, seven miles west of Medicine Hat, district of Assiniboia, N.W.T. Main seam—seam about 5' thick.—Presented by D. B. Woodworth, 1884.—Cretaceous, K. (Belly River series). (902.)
- South Saskatchewan River, ten miles below Medicine Hat, district of Assiniboia, N.W.T.—Coll., R. G. McConnell, 1883.—Cretaceous, K. (Belly River series). (4908.)
- Grassy Island, Bow River, district of Alberta, N.W.T. Main seam—seam 4' 6".—Coll., G. M. Dawson, 1881.—Cretaceous, K. (base of Pierre). (3445.)
- Grassy Island, Bow River, district of Alberta, N.W.T. Seam above main seam—seam 18".—Coll., G. M. Dawson, 1881.—Cretaceous, K. (3446.)
- Grassy Island, Bow River, district of Alberta, N.W.T. Seam below main seam—seam 8".—Coll., G. M. Dawson, 1881.—Cretaceous, K. (base of Pierre). (3447.)
- Blackfoot Crossing, Bow River, district of Alberta, N.W.T. Upper part of seam at old opening.—Coll., G. M. Dawson, 1881.—Cretaceo-Tertiary, K-L (Laramie). (3448.)
- Blackfoot Crossing, Bow River, district of Alberta, N.W.T. Lower part of seam at old opening.—Coll., G. M. Dawson, 1881.—Cretaceo-Tertiary, K-L (Laramie). (3449.)
- Blackfoot Crossing, Bow River, district of Alberta, N.W.T. "Conchoidal lignite" occurs in parts of seam at old opening.—Coll., G. M. Dawson, 1881.—Cretaceo-Tertiary, K-L (Laramie). (3450.)
- Bow River, above Blackfoot Crossing, district of Alberta, N.W.T. Seam 6".—Coll., G. M. Dawson, 1881.—Cretaceo-Tertiary, K-L (Laramie). (3451.)
- Horseshoe Bend, Bow River, district of Alberta, N.W.T. From upper part of seam—seam 4' 4".—Coll., G. M. Dawson, 1881.—Cretaceous, K. (top of Pierre). (3452.)
- Bow River, seam at the mouth of Highwood River, district of Alberta, N.W.T. Seam 3".—Coll., G. M. Dawson, 1881.—Cretaceo-Tertiary, K-L (Laramie). (3454.)
- Bow River (from shaft on bank of Crowfoot Creek, about five miles from its entry into Bow River) section 7, township 22, range XX, west of the 4th initial meridian, district of Alberta, N.W.T. Depth of shaft to bottom of coal 135'—seam 9".—Cretaceo-Tertiary, K-L (Laramie). (5041.)
- Little Bow River, north of Black Spring Ridge, district of Alberta, N.W.T.—Coll., R. G. McConnell, 1881.—Cretaceo-Tertiary, K-L (Laramie). (3474.)
- Little Bow River, district of Alberta, N.W.T. Seam 18".—Coll., G. M. Dawson, 1881.—Cretaceous, K. (Belly River series). (3475.)
- Scabby Butte, district of Alberta, N.W.T.—Coll., R. G. McConnell, 1881.—Cretaceo-Tertiary, K-L (base of Laramie). (921.)
- St. Mary River, district of Alberta, N.W.T. Furthest exposure of main seam.—Coll., G. M. Dawson, 1881.—Cretaceous, K. (base of Pierre). (3459.)

Upright  
wing-case  
8.—  
Continued.



## COAL SERIES—Continued.

## Lignite—Continued.

- Upright  
wing-case  
8.—  
Continued.
- Lignite**—Rye Grass Flat, Old Man River, district of Alberta, N.W.T. Seam 2' to 3'.—Coll., T. C. Weston, 1883.—Cretaceo-Tertiary, K-L. (base of Laramie). (4903.)
- Near Bull Pound Creek, township 29, range XIII. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 4' 6".—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5092.)
- Red Deer River, ridge west of Bull Pound Creek, township 28, range XIV. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 1' 6".—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5087.)
- Near Bull Pound Creek, township 28, range XIV. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 3'.—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5088, 5089.)
- Township 36, range XV. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 1' 8".—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5095.)
- Township 36, range XV. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 2'.—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5102.)
- North of Sullivan Lake, township 37, range XV. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 2' 7".—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5096.)
- Battle River, section 36, township 40, range XVI. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 3'.—Coll., J. B. Tyrrell, 1885.—Cretaceo-Tertiary, K-L. (Laramie). (5313.)
- Hand Hills, township 30, range XVII. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 4' 6".—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5093.)
- Battle River, section 33, township 42, range XVII. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 3' 4".—Coll., J. B. Tyrrell, 1885.—Cretaceo-Tertiary, K-L. (Laramie). (5309.)
- "The Maples," Battle River, section 18, township 43, range XVII. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 3' or more.—Coll., J. B. Tyrrell, 1885.—Cretaceo-Tertiary, K-L. (Laramie). (5310.)
- Meeting Creek (a tributary of Battle River), township 45, range XVII. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 4' 6".—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5104.)
- From seam near the mouth of Egg Creek, North Saskatchewan River, (opposite Victoria) township 58, range XVII. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 13".—Coll., J. B. Tyrrell, 1886.—Cretaceous, K. (Pierre). (5482.)
- Red Deer River, township 29, range XX. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 2'.—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5091.)
- Devils Pine Creek, township 30, range XXII. west of the 4th initial meridian, district of Alberta, N.W.T. Seam 4' 6".—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5094.)

Lignite—

## COAL SERIES—Continued.

## Lignite—Continued.

- Lignite**—Red Deer River, four miles below Tail Creek, township 37, range XXII, west of the 4th initial meridian, district of Alberta, N.W.T. 10' 6" coal in an 18' section—thickest seam 3'.—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5097.)
- Red Deer River, township 38, range XXII, west of the 4th initial meridian, district of Alberta, N.W.T. Seam 2' 6".—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5099.)
- Red Deer River, near the 10th correction line, range XXII, or XXIII, west of the 4th initial meridian, district of Alberta, N.W.T. Seam 1' 8" to 8".—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5100.)
- Knee Hills Creek, north of Rosebud River, township 29, range XXIII, west of the 4th initial meridian, district of Alberta, N.W.T. Seam 4'.—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5090.)
- Red Deer River, twelve miles above Tail Creek, township 38, range XXIV, west of the 4th initial meridian, district of Alberta, N.W.T. Seam 10' with 3' of interbedded sandstone and shale.—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5098.)
- South of the North Saskatchewan River, on Vermilion River, two hundred yards west of the trail between Battleford and Edmonton, township 51, range XI, west of the 4th initial meridian, district of Alberta, N.W.T.—Presented by Sir Charles Phipps, Bart., 1881.—Cretaceous, K. (3547.)
- North Saskatchewan River, near Victoria, township 58, range XXVIII, west of the 4th initial meridian, district of Alberta, N.W.T. Seam 1'.—Coll., J. B. Tyrrell, 1886.—Cretaceous, K. (5441.)
- Big Island seam, North Saskatchewan River, twelve miles above Edmonton, township 21, range XXV, west of the 4th initial meridian, district of Alberta, N.W.T. Seam 3' 8".—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary, K-L. (Laramie). (5483.)
- North Saskatchewan River, township 50, range XXVI, west of the 4th initial meridian, district of Alberta, N.W.T.—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary, K-L. (Laramie). (5439.)
- North Saskatchewan River, near the mouth of Conjuring Creek, township 51, range XXVI, west of the 4th initial meridian, district of Alberta, N.W.T. Seam 2' 8".—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary, K-L. (Laramie). (5436.)
- North Saskatchewan River, one mile below the ferry at Edmonton, district of Alberta, N.W.T.—Ross' seam—seam 4'.—Coll., J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5101.)
- Black Mud River, near Edmonton, district of Alberta, N.W.T. Seam said to be 3'.—Presented by Mr. Connors, per J. B. Tyrrell, 1884.—Cretaceo-Tertiary, K-L. (Laramie). (5103.)
- North Saskatchewan River, between Rocky Mountain House and Edmonton, district of Alberta, N.W.T.—Coll., A. R. C. Selwyn, 1873.—Cretaceo-Tertiary, K-L. (Laramie). (3465.)
- North Saskatchewan River, township 51, range II, west of the 5th initial meridian, district of Alberta, N.W.T.—Seam, 2' 10".—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary, K-L. (Laramie). (5438.)

Upright  
wing-case  
8.—  
Continued.

## COAL SERIES—Continued.

## Lignite—Continued.

- Upright  
wing-case  
8.—  
Continued.
- Lignite** North Saskatchewan River, right bank, about forty miles below its confluence with the Brazeau River, district of Alberta, N.W.T. Seam 18' to 20' thick.—Coll. R. W. Ellis, 1875.—Cretaceous-Tertiary, K-L. (Laramie). (927.)
- Athabasca River, about fifty-five miles above the site of old Fort Assiniboine, district of Alberta, N.W.T. Lower seam—seam 3'.—Coll. G. M. Dawson, 1879.—Cretaceous-Tertiary, K-L. (Laramie). (3461.)
- Smoky River, five miles below the mouth of Little Smoky River, district of Alberta, N.W.T. Seam 23'.—Coll. G. M. Dawson, 1879.—Cretaceous, K. (Dunvegan group). (3468.)
- Burnt River, Peace River, district of Athabasca, N.W.T.—Coll. R. G. McConnell, 1879.—Cretaceous, K. or Cretaceous-Tertiary, K-L. (Laramie). (3462.)
- Mackenzie River, fifteen miles above the mouth of Bear River, N.W.T. Upper seam.—Coll. R. G. McConnell, 1888. (5724.)
- Mackenzie River, fifteen miles above the mouth of Bear River, N.W.T. Lower seam.—Coll. R. G. McConnell, 1888. (5725.)
- Mackenzie River, five miles above Bear River, N.W.T.—Coll. R. G. McConnell, 1888. (5726.)
- Rat River, Rocky Mountains, Lat. 67° 30', N.W.T.—Coll. R. G. McConnell, 1888. (5727.)
- Pine River, Coal Brook, about two and a half miles east of the Lower Forks, B.C. Seam 6'.—Coll. G. M. Dawson, 1879.—Cretaceous, K. (Dunvegan group). (4899.)
- At the junction of Nicola and Coldwater Rivers, B.C.—Coll. G. M. Dawson, 1877.—Tertiary, L 2. (Miocene). (920.)
- Fort George, Fraser River, B.C.—Coll. G. M. Dawson, 1875. (Loose). (1013.)
- Blackwater Depot, Blackwater River, B.C.—Coll. G. M. Dawson, 1875.—Tertiary, L 2. (Miocene). Drift lignite. (3477.)
- Chin-oo-kun-dl Creek, Graham Island, north of Skidegate Inlet, Queen Charlotte Islands, B.C.—Coll. G. M. Dawson, 1878. Tertiary, L 2. (Miocene). (3476.)
- Skon-un Point, Graham Island, Queen Charlotte Islands, B.C.—Coll. G. M. Dawson, 1878.—Tertiary, L 2. (Miocene). (3480.)
- Ya-kun Point, Graham Island, Queen Charlotte Islands, B.C.—Coll. G. M. Dawson, 1878.—Tertiary, L 2. (Miocene). (3482.)

## Lignitic Coal.

- Lignitic coal.**—Sheran's mine, Coal Banks, Belly River, district of Alberta, N.W.T. Main seam—seam averages 5' 4'.—Coll. G. M. Dawson, 1881.—Cretaceous, K. (base of Pierre). (498.)
- Coal Banks, Belly River, district of Alberta, N.W.T. Above main seam—seam 8'.—Coll. G. M. Dawson, 1881.—Cretaceous, K. (base of Pierre shales). (3470.)
- Belly River, five miles below the mouth of Little Bow River, district of Alberta, N.W.T. Seam 1' 6'.—Coll. G. M. Dawson, 1881. Cretaceous, K. (Belly River series). (3471.)
- Belly River, about five miles below Coal Banks, district of Alberta, N.W.T. Main seam.—Coll. G. M. Dawson, 1881.—Cretaceous, K. (base of Pierre). (3472.)
- Belly River, seam at mouth of St. Mary River, district of Alberta, N.W.T.—Coll. G. M. Dawson, 1881.—Cretaceous, K. (base of Pierre). (3473.)

## COAL SERIES—Continued.

## Lignite Coal—Continued.

- Lignite coal**—Near Indian Farm, south of Pincher Creek, Old Man River, township 5, range XXIX, west of the 4th initial meridian, district of Alberta, N.W.T. Seam 2'.—Coll., G. M. Dawson, 1881.—Cretaceo-Tertiary, K-L. (base of Laramie). (3455.)
- Pincher Creek (near the road crossing), Old Man River, district of Alberta, N.W.T.—Coll., T. C. Weston, 1873.—Cretaceo-Tertiary, K-L. (Laramie). (4912.)
- Red Deer River, near the outer edge of the Foot Hills, township 31, range VII, west of the 5th initial meridian, district of Alberta, N.W.T. Seam 9'.—Coll., J. B. Tyrrell, 1885.—Cretaceo-Tertiary, K-L. (Laramie). (5311.)
- North Saskatchewan River, at the mouth of the Clearwater River, township 39, range VII, west of the 5th initial meridian, district of Alberta, N.W.T. Seam 8½'.—Coll., J. B. Tyrrell, 1885.—Cretaceo-Tertiary, K-L. (Laramie). (5312.)
- Rocky Mountain House seam, North Saskatchewan River, two miles below the mouth of Clearwater River, section 33, township 39, range VII, west of the 5th initial meridian, district of Alberta, N.W.T. Seam 2' or more.—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary, K-L. (Laramie). (5486.)
- Lewes River (a branch of the Yukon River), four and a half miles above Rink Rapid, N.W.T. Seam about 3'.—Coll., G. M. Dawson, 1887.—Cretaceo-Tertiary, K-L. (Laramie). (5548.)
- Wapita (Elk) River, Peace River district, N.W.T.—Coll., G. M. Dawson, 1879.—Cretaceo-Tertiary, K-L. (Laramie). (3469.)
- Coal Gully, Nicol River, B.C. Upper seam—seam 15' 4".—Coll., G. M. Dawson, 1877.—Tertiary, L 2. (Miocene). (3479.)

Upright  
wing-case  
8.—  
Continued.

## Coal of Cretaceous and Laramie age.

- Coal**—St. Mary River, near the forty-ninth parallel, district of Alberta, N.W.T. Seam 1' 6".—Coll., G. M. Dawson, 1873.—Cretaceo-Tertiary, K-L. (base of Laramie). (3509.)
- St. Mary River, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1873.—Cretaceo-Tertiary, K-L. (Laramie?) (3464.)
- Upper Belly River, twenty-five and a half miles above the mouth of Kootanie (Waterton) River, district of Alberta, N.W.T. Seam 1'.—Coll., R. G. McConnell, 1881.—Cretaceo-Tertiary, K-L. (base of Laramie). (4898.)
- Middle Fork, Old Man River, district of Alberta, N.W.T. Lower seam—seam about 3'.—Coll., G. M. Dawson, 1881.—Cretaceo-Tertiary, K-L. (Laramie). (3456.)
- Middle Fork, Old Man River, district of Alberta, N.W.T. Upper seam—seam 3'.—Coll., G. M. Dawson, 1881.—Cretaceo-Tertiary, K-L. (Laramie). (3458.)
- North-west branch of the North Fork of Old Man River, Rocky Mountains, district of Alberta, N.W.T. Seam 8' or more.—Coll., G. M. Dawson, 1883.—Cretaceous, K. (4897.)
- Oyster Creek, north-west branch of the North Fork of Old Man River, Rocky Mountains, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1883.—Cretaceo-Tertiary, K-L. (Laramie). (5109.)
- South Fork of Old Man River, four miles above south branch, Rocky Mountains, district of Alberta, N.W.T. Seam 9' 9".—Coll., G. M. Dawson, 1883.—Cretaceous, K. (4902.)

## COAL SERIES—Continued.

## Coal of Cretaceous and Laramie age—Continued.

- Upright  
wing-case  
8.—  
Continued.
- Coal—Conléc near Pincher Creek, one mile and a half from the trail-crossing, Old Man River, district of Alberta, N.W.T. Seam about 2' 6".—Coll., J. B. Tyrrell, 1883.—Cretaceo-Tertiary, K.L. (base of Laramie). (4896.)
- Mill Creek, about four miles above the mill, township 5, range I, west of the 5th initial meridian, district of Alberta, N.W.T. Seam 8' to 9' thick.—Coll., G. M. Dawson, 1881.—Cretaceo-Tertiary, K.L. (Laramie). (3481.)
- From seam near the headwaters of Mill and Pincher Creeks, section 10, township 5, range I, west of the 5th initial meridian, district of Alberta, N.W.T. Seam about 8'.—Presented by N. M. F. Scobie, 1888.—Cretaceo-Tertiary, K.L. (Laramie). (5445.)
- Coal Creek, Bow River, between Morley and Calgary, district of Alberta, N.W.T. Seam 1'.—Coll., G. M. Dawson, 1881.—Cretaceo-Tertiary, K.L. (base of Laramie). (3453.)
- Bow River coal mine (Vaughan's mine), south side of Bow River, a quarter of a mile south-east from mouth of Coal Creek, section 13, township 26, range V, and section 18, township 26, range IV, west of the 4th initial meridian, district of Alberta, N.W.T. Seam 10' 10", with three partings; total thickness of coal, 7' 7".—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary, K.L. (base of Laramie). (5474.)
- Red Deer River, Rocky Mountains, district of Alberta, N.W.T.—Coll., G. M. Dawson, 1884.—Cretaceous, K. (5108.)
- North Kootanie Pass, Rocky Mountains, B.C.—Coll., G. M. Dawson, 1883.—Cretaceous, K. (4895.)
- Entrance to North Kootanie Pass, Rocky Mountains, N.W.T. Seam 1' 6".—Coll., G. M. Dawson, 1883.—Cretaceous, K. (4904.)
- South Fork of Sheep Creek, section 2, township 20, range III, west of the 5th initial meridian, district of Alberta, N.W.T. (3639.)
- Crow Nest Pass, four miles west of the Gap, Rocky Mountains, district of Alberta, N.W.T. Middle seam—seam 2' 10".—Coll., G. M. Dawson, 1883.—Cretaceous, K. (4905.)
- Second crossing, Marten Creek, Crow Nest Pass, Rocky Mountains, B.C.—Coll., G. M. Dawson, 1883.—Cretaceous, K. (Kootanie series). (4893, 4894.)
- Coal Creek, Crow Nest Pass, Rocky Mountains, B.C. Seam 7'.—Coll., A. R. C. Selwyn, 1891.—Cretaceous, K. (Kootanie series). (5448.)
- Marten Creek, Crow Nest Pass, Rocky Mountains, B.C. Seam 6'.—Coll., A. R. C. Selwyn, 1891.—Cretaceous, K. (Kootanie series). (5451.)
- "Jubilee" seam, second crossing, Marten Creek, Crow Nest Pass, Rocky Mountains, B.C. Seam about 30' clear coal.—Presented by the Crow Nest Mining Company, 1886.—Cretaceous, K. (Kootanie series). (5484.)
- "Peter" seam, second crossing, Marten Creek, Crow Nest Pass, Rocky Mountains, B.C. Seam about 14' clear coal.—Presented by the Crow Nest Coal Mining Company, 1886.—Cretaceous, K. (Kootanie series). (965.)
- Elk River, Crow Nest Pass, Rocky Mountains, B.C. Seam 15'.—Coll., A. R. C. Selwyn, 1891.—Cretaceous, K. (Kootanie series). (5577.)

Upright  
wing-case  
9.

Coal—

COAL SERIES—Continued.

Coal of Cretaceous and Tertiary age—Continued.

- Coal—Indian Reserve, Coal Creek, North Thompson River, B.C.—Coll., G. M. Dawson, 1877.—Tertiary, L. 2. (Miocene). (1212.)
- Union mine, Comox, Vancouver Island, B.C.—Presented by the Union Mining Company, 1875.—Cretaceous, K. (496.)
- Baynes Sound mine, Comox, Vancouver Island, B.C.—Upper seam—seam 5' 10".—Coll., G. M. Dawson, 1878.—Cretaceous, K. (918.)
- Baynes Sound mine, Comox, Vancouver Island, B.C.—From end of adit on upper seam.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (3495.)
- Baynes Sound mine, Comox, Vancouver Island, B.C.—Lower seam—seam about 7' thick.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (644.)
- Wellington mine, two and a half miles north-west of Nanaimo, and three miles west of Departure Bay, Vancouver Island, B.C. "Newcastle" seam—seam 6' to 10'.—Presented by Dunsmuir, Diggle and Company, 1875.—Cretaceous, K. (3497.)
- Newcastle Island, near Nanaimo, Vancouver Island, B.C.—Lower seam—seam 4'.—Coll., J. Richardson, 1872.—Cretaceous, K. (3498.)
- From between Beaver Harbour and Alert Bay, two and a half miles south-east of Fort Rupert, Vancouver Island, B.C. Seam 6'.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (3492.)
- From between Beaver Harbour and Alert Bay, four miles south-east of Fort Rupert, Vancouver Island, B.C. Seam 4'.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (3493.)
- Kikuk River, near the mouth, about three miles south of Beaver Harbour, Vancouver Island, B.C.—Seam 6'.—Coll., G. M. Dawson, 1885.—Cretaceous, K. (5475.)
- On small stream, three-quarters of a mile south of the mouth of Klik-si-wi River, north-east coast of Vancouver Island, B.C. Seam 1' 4".—Coll., G. M. Dawson, 1885.—Cretaceous, K. (5476.)
- About two miles and a quarter up the Klik-si-wi River, north-east coast of Vancouver Island, B.C. Seam 2' to 3'.—Coll., G. M. Dawson, 1885.—Cretaceous, K. (5481.)
- Squash, north-east coast of Vancouver Island, B.C. Upper seam—seam 1' to 2'.—Coll., G. M. Dawson, 1885.—Cretaceous, K. (966.)
- Coal Harbour, Quatsino Sound, Vancouver Island, B.C.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (Drift in inlet). (3483.)
- Coal Harbour seam, Coal Harbour, Quatsino Sound, Vancouver Island, B.C.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (3485.)
- From shaft sunk on two to three feet seam, north of Coal Harbour, Quatsino Sound, Vancouver Island, B.C.—Coll., G. M. Dawson, 1885.—Cretaceous, K. (5479.)
- Rupert Arm, north side of Quatsino Sound, two miles and a quarter north-east of Hankin Point, Vancouver Island, B.C.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (3488.)
- Forward Inlet, Quatsino Sound, Vancouver Island, B.C. From upper part of seam.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (3490.)
- Forward Inlet, Quatsino Sound, Vancouver Island, B.C. Best sample from heap at excavation.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (3491.)

Upright  
wing-case  
9.—  
Continued.

## COAL SERIES—Continued.

## Coal of Cretaceous and Laramie age—Continued.

- Upright  
wing-case  
9.—  
Continued.
- Coal—From a seam near Ya-koun River, which flows into Masset Inlet—about twelve miles to the north of Skidegate Inlet, Queen Charlotte Islands, B.C. Seam said to be 18'.—Presented by W. A. Robertson, 1886.—Cretaceous, K. (968.)
- South side of Skidegate Inlet, Queen Charlotte Islands, B.C.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (3489.)

## Anthracitic coal.

- Anthracitic coal.—Cascade River, two and three-quarter miles from its confluence with the Bow, Bow River Pass, Rocky Mountains, section 8, township 26, range XI. west of the 5th initial meridian, district of Alberta, N.W.T. Seam about 1' 8".—Coll., E. Coste, 1883.—Cretaceous, K. (Kootanie series.) (5488.)

## Semi-anthracite.

- Semi-anthracite.—Cascade River, near Bow River, about a quarter of a mile from the line of the C.P.R., south-east corner of section 8, township 26, range XI. west of the 5th initial meridian, district of Alberta, N.W.T. Upper thick seam, near Hughes (now Stewart's) mine. Seam 3' 10".—Coll., G. M. Dawson, 1885.—Cretaceous, K. (Kootanie series.) (5111.)
- Cascade mine (Moberly's), Cascade River, Bow River Pass, Rocky Mountains, district of Alberta, N.W.T. Seam about 4'—Coll., A. R. C. Selwyn, 1883.—Cretaceous, K. (5045.)
- Canmore mine, one mile from Canmore station, C.P.R., on the south side of Bow River, section 31, township 34, range X. west of the 5th initial meridian, district of Alberta, N.W.T. Coll., G. M. Dawson, 1891.—Cretaceous, K. (5677.)
- Bow River, right bank, one mile and a half from Canmore station, C.P.R., section 29, township 24, range X. west of the 5th initial meridian, district of Alberta, N.W.T. Seam about 1'.—Coll., G. M. Dawson, 1885.—Cretaceous, K. (5110.)
- Marsh's mine, about one mile and a half south of Bow River, at Gap siding, Rocky Mountains, district of Alberta, N.W.T. Upper seam—seam about 12'.—Coll., R. G. McConnell, 1886.—Cretaceous, K. (5477.)
- From the same locality as No. 5477.—Lower seam—seam 10'.—Coll., R. G. McConnell, 1886.—Cretaceous, K. (5478.)

## Anthracite.

- Anthracite.—Robinson Creek Tunnel, Cowgitz, Queen Charlotte Islands, B.C.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (3487.)
- Cowgitz, Skidegate Inlet, southern end of Graham Island, Queen Charlotte Islands, B.C.—Coll., J. Richardson, 1872.—Cretaceous, K. (1023.)
- Hooper Creek or Nicholson's Tunnel, Cowgitz, Queen Charlotte Islands, B.C.—Coll., J. Richardson, 1872.—Cretaceous, K. (3496.)

**COAL SERIES—Continued.**

**Anthracite—Continued.**

**Carbonaceous shale.**—From the so-called anthracite mine, Lepreau, Charlotte county, N.B.—Coll., R. Chalmers, 1884.—Carboniferous, G. L. (In drawer under case.) (3619.)

Upright  
wing-case  
9.—  
Continued.

The following, which are shown in connection with the lignite, are also placed in this case.

Material resulting from the combustion of seam of lignite, from foot of the slope in which the seam of lignite is exposed, North Saskatchewan River, section 35, township 50, range IV. west of the 5th initial meridian, district of Alberta, N.W.T. Carries traces of gold.—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary, K.L. (Laramie). (5420.)

Material resulting from combustion of seam of lignite, from seam. Haneý's first claim, North Saskatchewan River, section 35, township 50, range IV. west of the 5th initial meridian, district of Alberta, N.W.T. Carries traces of gold.—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary, K.L. (Laramie). (5421.)

Arenaceous clay-shale overlying seam of lignite. Haneý's second claim, North Saskatchewan River, section 35, township 50, range IV. west of the 5th initial meridian, district of Alberta, N.W.T. Carries traces of gold.—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary, K.L. (Laramie). (5422.)

Ashes resulting from the combustion of seam of lignite, from seam. Haneý's second claim, North Saskatchewan River, section 35, township 50, range IV. west of the 5th initial meridian, district of Alberta, N.W.T. Carries traces of gold.—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary, K.L. (Laramie). (5423.)

Shaly parting in seam (eight feet from top) of lignite, near Haneý's first claim, North Saskatchewan River, section 35, township 50, range IV. west of the 5th initial meridian, district of Alberta, N.W.T. Carries traces of gold.—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary, K.L. (Laramie). (5424.)

Portion of erect trunk of fossil tree found standing over seam of lignitic coal (No. 5486) at Rocky Mountain House, North Saskatchewan River, district of Alberta, N.W.T. The exterior two inches of the trunk is converted into lignitic coal—whilst the interior woody tissue has been almost entirely replaced by siliceous and argillaceous material.—Coll., J. B. Tyrrell, 1886.—Cretaceo-Tertiary. K.L. (Laramie.) (5437.)

**Coal of the Carboniferous System.**

- Coal.**—Albion Mines, west side of East River, Pietou county, N.S. Main seam 3' 6" from top. (527.)
- Albion Mines, Main seam, 6' from top. (530.)
  - do do 7' do (525.)
  - do do 8' do (529.)
  - do do 15' do (526.)
  - do bottom of Main seam. (528.)
  - do Deep seam, 3' from top. (532.)
  - do do first bench. (533.)
  - do bottom of Deep seam. (524.)
  - Acadia Mines, west side of East River, Pietou county, N.S.—McGregor seam. (505.)

Upright  
wing-case  
10.



## COAL SERIES—Continued.

## Coal of the Carboniferous System—Continued.

Upright	Coal—Acadia Colliery, Acadia seam, French's slope, below	fire-clay.	(518.)
wing-case	— do do first bench, west slope.		(516.)
10.—	— do do third do do		(519.)
Continued.	— do do fourth do do		(522.)
	— do do fifth do do		(520.)
	— do bottom of Acadia seam.		(523.)
	— Drummond Colliery, west side of East River, Pictou county, N.S.—	Acadia seam, Fall-coal bench.	(540.)
	— Drummond Colliery, Acadia seam, first bench, 10' from pavement.		(535.)
	— Drummond Colliery, Acadia seam, second bench, 8' from pavement.		(537.)
	— Drummond Colliery, Acadia seam, Stone-coal, between second and	third bench, 6' from pavement.	(536.)
	— Drummond Colliery, Acadia seam, third bench, 2' from pavement.		(538.)
	— Drummond Colliery, Acadia seam, Coarse-coal bench, bottom of	seam.	(542.)
	— Vale Colliery, east side of East River, Pictou county, N.S.—McBean	8' seam, first bench.	(507.)
	— Vale Colliery, McBean 8' seam, second bench.		(506.)
	— do do bottom do		(512.)
	— Marsh Colliery, east side of East River, Pictou county, N.S.—George	Mackay seam.	(515.)
	— Montreal and New Glasgow Coal Company's mine, on left bank of	Potter's Brook, Pictou, county, N.S.—Lawson's seam,	Lawson's slope, Good-coal bench.
			(508.)
	— Montreal and New Glasgow Coal Company's mine, Lawson's seam,	Lawson's slope, Mineral-charcoal bench.	(509.)
	— Montreal and New Glasgow Coal Company's mine, Lawson's seam,	Lawson's slope, Coarse-coal bench.	(510.)
	— Joggins mine, Cumberland county, N.S.		(488.)
	— Springhill Mines, Cumberland county, N.S.—Black seam.		(493.)
	— do Anderson's slope, west level.		(504.)
	— Lorway mine, Cape Breton county, N.S.—Lorway seam.		(487.)
	— Sydney Mines do Main seam.		(489.)
	— Block House mine do Block House seam.		(490.)
	— Schooner Pond mine do Ross seam.		(491.)
	— Lingan mine do Main seam.		(492.)
	— Little Glace Bay Mines do Harbour seam.		(497.)
	— Victoria mine do Lyle seam.		(501.)
	— Caledonia mine do Phelan seam.		(503.)
	— Gardiner mine do Lorway seam.		(544.)
	— Emery mine do Ross or Emery seam.		
	— Kelly Cove, Cape Breton county, N.S.—4' seam.		(1022.)

## BITUMEN SERIES

Upright  
wall-case  
11. **Albertite.**—Albert Mines, Albert county, N.B.—Coll., L. W. Bailey, 1875.—  
Carboniferous, G 1 (1016.)

## BITUMEN SERIES—Continued.

**Bituminous sand-rock**.—Athabasca River (at its confluence with the Clearwater River—and beyond), N.W.T.—Coll., R. Bell, 1882. (909.)

(1) The quartz sand of "Bituminous sand-rock" as left on removal of the bituminous matter. (909a.)

Upright  
wall-case  
H.—  
Continued.

**Bituminous shale**.—Dorchester, Westmoreland county, N.B.—Coll., L. W. Bailey, 1875.—Carboniferous, G 1. (5258.)

**Mineral tar** (maltha).—White Mud River, two hundred and fifty miles above Fort Vermillion, Peace River, N.W.T. (4964.)

— Tar Island, Peace River, twenty-seven miles below Smoky River, N.W.T.—Presented by W. Ogilvie, 1885. (4965.)

— North shore of Great Slave Lake, about thirty miles east of outlet, N.W.T.—Coll., R. G. McConnell, 1887. (4705.)

— Athabasca River (about twelve miles below its confluence with the Little Red River—and beyond), N.W.T.—Coll., A. S. Cochran, 1881. (1017.)

**Trap**, with cavities containing more or less altered petroleum, Tar Point, township of Douglas, Gaspé county, Q. (889.)

**Oil-coal**.—Andrew Patrick's mine, McLellan's Brook, Pictou county, N.S.—Coll., E. Hartley, 1868.—Carboniferous, G. (511.)

— From a pit on the old brick-kiln road, Montreal and Pictou area, Pictou county, N.S.—Coll., E. Hartley, 1868.—Carboniferous, G. (840.)

— (Stellarite).—Aeolia Mines, Pictou county, N.S.—Coll., W. E. Logan, 1868.—Carboniferous G. (851.)

**Oil shale**.—Haliburton pit, Marsh Brook, Pictou county, N.S.—Coll., W. E. Logan, 1868.—Carboniferous G. (845.)

**Petroleum-bearing fossiliferous limestone**.—Lot 13, range II. of Bertie, Welland county, O.—Devonian, F 1. (711.)

**Crude petroleum**.—Lake Ainslie, Inverness county, Cape Breton, N.S.—Presented by W. Harrington. (723.)

— St. Joseph, Dorchester, Westmoreland county, N.B.—Coll., H. P. Brunell, 1891.—Carboniferous, G 1. (910.)

— Beliveau mine, Beliveau, Westmoreland county, N.B.—Coll., W. McOnat, 1873.—Carboniferous, G 1. (2443.)

— Vicinity of Gaspé Basin, Gaspé county, Q.—Coll., T. C. Weston, 1865.—Devonian, F 1 (717.)

— From a branch of Silver Brook, about eighteen miles from Gaspé Basin, Gaspé county, Q.—Coll., A. R. C. Selwyn, 1889. (987.)

— Walker's well "No. 2," Marshfield, south-west corner of lot 11, range VI. of Colchester, Essex county, O.—Coll., H. P. Brunell, 1891.—Silurian, E. (655.)

— Tilsonburg, Dereham, Oxford county, O.—Devonian, F 1. (712.)

— Miles' and Watkins' rock well, Tilsonburg, Dereham, Oxford county, O.—Devonian, F 1. (715.)

— Kelly's well, Enniskillen, Lambton county, O. (714.)

— Miller's surface well do do (716.)

— Piker's well do do (718.)

— Williams' well do do (722.)

— 33' Baumé.—Petrolia, Enniskillen, Lambton county, O.—Devonian, F 1. (5000.)

Products (Nos. 5000a to 5000c) obtained therefrom, presented by Isaac Waterman, London, O.

(1) Benzine (petroleum spirit). (5000a.)

## BITUMEN SERIES—Continued.

Upright wall-case 11.— Continued.	<b>Crude petroleum</b> —Products, etc.—Continued.
	(2) Illuminating oil 150° fire test. (5000b.)
	(3) do 200° do (5000c.)
	(3) do (mineral sperm oil) 300° fire test. (5000d.)
	(5) Oil for painters use. (5000e.)
	(6) "Bloomless" oil, for mixing with animal oils. (5000f.)
	(7) Illuminating oil (hand-lamp oil). (5000g.)
	(8) Tar, 20° Baumé. (5000h.)
	(9) Coke (soft). (5000i.)
	(10) Unpressed paraffin oil, 29° Baumé. (5000j.)
	(11) Pressed do 25° do (5000k.)
	(12) do do 26° do (5000l.)
	(13) do do 27° do (5000m.)
	(14) do do 28° do (5000n.)
	(15) Lubricating oil (engine oil). (5000o.)
	(16) do (heavy engine oil). (5000p.)
	(17) do (wooden-machinery oil) 28° Baumé. (5000q.)
	(18) Lubricating oil (spindle oil) 26° Baume. (5000r.)
	(19) Heavy paraffin oils, mixed for machinery oil. (5000s.)
	(20) Steam-filtered petroleum, for lubricating purposes. (5000t.)
	(21) Lubricating oil (coach oil) 28° Baumé. (5000u.)
	(22) Oil for tanner's use. (5000v.)
	(23) Flour paraffin. (5000w.)
	(24) Crude paraffin wax. (5000x.)
	(25) Axle grease (yellow). (5000y.)
	(26) do (black). (5000z.)
	(27) Candles. (5000aa.)
	(28) Paraffin wax. (5000bb.)
	(29) Coke (hard) final residuum of distillation. (5000cc.)
—	Cape Smith, Grand Manitoulin Island, Lake Huron, O.—Cambro-Silurian, D 2. (713.)
—	South Kootanie Pass, Rocky Mountains, district of Alberta, N.W.T.—Coll., A. R. C. Selwyn, 1891. (5057.)
—	South Kootanie Pass, Rocky Mountains, B.C.—Coll., A. R. C. Selwyn, 1891. (5058.)
—	Sage Creek, Flathead River, East Kootanie district, B.C.—Presented by Lieut.-Colonel Baker, M.P.P., 1890. (4686.)
	Oil distilled from the shale of Kettle Point, Bosanquet, Lambton county, O. (719.)

IV. MINERALS (AND MATERIAL MANUFACTURED FROM CERTAIN OF THE SAME) APPLICABLE TO COMMON AND DECORATIVE CONSTRUCTION.

## ROOFING SLATES.

Upright wing-case 12.	<b>Roofing slate.</b> —Lot 4, range I. of Kingsey, Drummond county, Q.—Coll., J. Richardson, 1859.—Cambrian, C. (545.)
—	Rankin Hill slate quarry, lot 25, range V. of Acton, Bagot county, Q.—Coll., T. C. Weston, 1875.—Cambrian, C 3. (552.)

## ROOFING SLATES—Continued.

- Roofing slate—Lot 2, range V. of Orford, Sherbrooke county, Q.—Coll., J. Richardson.—Cambro-Silurian, D. (554.) Upright wing-case 12.—Continued.
- St. Sylvestre, St. Giles de Beauvillage, Lotbinière county, Q.—Coll., A. R. C. Selwyn.—Cambrian, C. (2504.)
- New Rockland slate quarry, lot 23, range IV. of Melbourne, Richmond county, Q.—Presented by Charles Drummond, Montreal, 1875.—Cambrian, C. (2505.)
- (1.) Slab of planed slate. (2505a.)
- Melbourne slate quarry, lot 22, range VI. of Melbourne, Richmond county, Q.—Presented by E. Walton. 1875.—Cambrian, C. (547.)
- Steele's quarry, lot 6, range XV. of Cleveland, Richmond county, Q.—Coll., T. C. Weston.—Cambrian C. (546.)
- Bedard's quarry, lot 5, range XV. of Cleveland, Richmond county, Q.—Coll., R. W. Ellis, 1889.—Cambrian, C. (550.)
- School slates, and ornamental slate panel manufactured by the Danville School Slate Company at Gansonville, from slate found on lot 7, range IV. of Shipton, Richmond county, Q.—Coll., T. C. Weston, 1875.—Cambrian C. (548 and 549.)
- Roofing slate.—Lot 5, range VI. of Madoc, Hastings county, O.—Coll., C. W. Willimott, 1885.—Archean, A. B. (2578.)
- Slate flooring-tiles.—Lot 15, range IX. of Garthby, Wolfe county, Q.—Coll., J. Richardson.—Cambrian, C. (2580.)
- Tile-stones.—Anse à la Vieille, Port Daniel, Bonaventure county, Q.—Coll., W. E. Logan, 1843.—Cambrian, C 3. (825.)

## BUILDING STONES.

## Limestones.

- Limestone.—Parrsborough, Cumberland county, N.S.—Coll., S. Barlow, 1875. Upright wing-case 13.  
—Carboniferous, G. 1. Six-inch cube, dressed. (1172.)
- River Mistassini (about thirty miles from Lake St. John and ten miles above steam navigation), Chicoutimi county, Q.—Presented by J. G. Scott, 1800.—Laurentian, A. Dressed block, 6½ by 4 by 2½ inches. (571.)
- Pointe aux Trembles, Portneuf county, Q.—Coll., J. Richardson, 1875.—Cambro-Silurian, D 2. Six-inch cube, dressed. (1166.)
- Deschambault, Portneuf county, Q.—Cambro-Silurian, D 2. Five and a half inch cube, dressed. (1167.)
- St. Alban quarry, La Chevrotière, Portneuf county, Q.—Presented by C. Dussault, 1885.—Cambro-Silurian, D 2. Six-inch cube, dressed. (5127.)
- Lot 12, range VI. of Dudswell, Wolfe county, Q.—Silurian, E 3. Six-inch cube, dressed. (534.)
- Dudswell, Wolfe county, Q.—Silurian, E 3. Six-inch cube dressed. (559.)
- Lot 15, range V. of Dudswell, Wolfe county, Q.—Coll., C. W. Willimott, 1885.—Silurian, E 3. Six-inch cube, dressed. (5119.)
- Joliette (Industry village), Joliette county, Q.—Coll., W. E. Logan, 1852.—Cambro-Silurian, D 1. Six-inch cube, dressed. (560.)
- St. Lin, L'Assomption county, Q.—Coll., J. Richardson, 1852.—Cambro-Silurian, D 1. Six-inch cube, dressed. (564.)
- Pointe Clair, Jacques Cartier county, Q.—Presented by R. Forsyth, 1875.—Cambro-Silurian, D 1. Six-inch cube, dressed. (1164.)
- From the same locality as the preceding (No. 1164) but differing in colour. (1165.)

## BUILDING STONES—Continued.

## Limestones—Continued.

Upright  
wing-case  
13.—  
Continued.

- Limestone.**—Montreal, Hochelaga county, Q.—Cambro-Silurian, D 1. Six inch cube, dressed. (557.)
- Montreal, Hochelaga county, Q.—Cambro-Silurian, D 2. Six-inch cube, dressed. (563.)
- Caughnawaga, Laprairie county, Q.—Cambro-Silurian, D 1. Five and a half-inch cube, dressed. (568.)
- "Bernier" quarry, about five miles from St. John's, St. John's county, Q. Six-inch cube, dressed. (502.)
- Brunet's quarry, St. Armand, Missisquoi county, Q.—Cambrian, C 3. Six-inch cube, dressed. (1161.)
- St. Dominique, Soulanges county, Q.—Cambro-Silurian, D 1. Five and a half-inch cube, dressed. (567.)
- McGregor's quarry, Lachute, Argenteuil county, Q.—Coll. B. J. Harrington, 1875.—Laurentian, A. Six-inch cube, dressed. (1154.)
- Grenville, about half a mile from the Calumet mills, Argenteuil county, Q.—Coll. T. C. Weston, 1875.—Laurentian, A. Six-inch cube, dressed. (1158.)
- Mahoney's quarry, Hull, Ottawa county, Q.—Coll. C. W. Willimott, 1885.—Cambro-Silurian, D 2. Six-inch cube, dressed. (5065.)
- Wright's quarry, Hull, Ottawa county, Q.—Coll. C. W. Willimott, 1885.—Cambro-Silurian, D 2. Six-inch cube, dressed. (5066.)
- Lot 14, range VIII. of Hull, Ottawa county, Q.—Coll. C. W. Willimott, 1884.—Laurentian, A. Six-inch cube, dressed. (4920.)
- Portage du Fort, Litchfield, Pontiac county, Q.—Coll. C. W. Willimott, 1885.—Laurentian, A. Six-inch cube, dressed. (5078.)
- From the same locality as the preceding (No. 5078) but differing in colour. (5105.)
- East Hawkesbury, Prescott county, O.—Cambro-Silurian, D 1. Six-inch cube, dressed. (566.)
- "Rockville" quarries, Gloucester, Carleton county, O.—Coll. T. C. Weston, 1875.—Cambro-Silurian, D 1. Six-inch cube, dressed. (561.)
- Lot 7, range IV. of Ramsay, Lanark county, O.—N. Lavallée, Carleton Place.—Laurentian, A. Six-inch cube, dressed. (500.)
- Lots 9 and 10, range VI. of Ramsay, Lanark county, O.—Coll. C. W. Willimott, 1883.—Laurentian, A. Six-inch cube, dressed. (5716.)
- Lot 24, range VIII. of Lanark, Lanark county, O.—Coll. H. G. Vennor, 1875.—Laurentian, A. Six-inch cube, dressed. (1155.)
- Lanark village, Lanark county, O.—Coll. H. G. Vennor, 1875.—Laurentian, A. Six-inch cube, dressed. (1156.)
- Hogg's quarry, east half of lot 21, range X. of Lanark, Lanark county, O.—Coll. C. W. Willimott, 1885.—Laurentian, A. Six-inch cube, dressed. (5076.)
- Lot 11, range III. of McNab, Renfrew county, O.—E. Harrington, 1875.—Cambrian, C 2. Six-inch cube, dressed. (1157.)
- Lot 4, range XIV. of McNab, Renfrew county, O.—Laurentian, A. Dressed block, 8 by 8 by 6 inches. (5081.)
- East half of lot 24, range IV. of Ross, Renfrew county, O.—Coll. C. W. Willimott, 1885.—Laurentian, A. Six-inch cube, dressed. (5077.)

Limestone

## BUILDING STONES—Continued.

## Limestones—Continued.

- Limestone**—From the so-called "Renfrew Granite Quarry," lot 11, range H, of Horton, Renfrew county, O.—Coll., C. W. Willimott, 1885. —Laurentian, A. Six-inch cube, dressed. (5079.) Upright wing-case 13.—Continued.
- High Falls, Madawaska River, lot 13, range III, of Blythfield, Renfrew county, O.—Laurentian, A. Dressed block,  $11\frac{1}{2}$  by 12 by 4 inches. (5080.)
- Kilpatrick's quarry, Kingston, Frontenac county, O.—Coll., C. W. Willimott, 1885.—Cambro-Silurian, D 1. Six-inch cube, dressed. (4935.)
- "Wolfe Island" quarry, Long or Wolfe Island, Kingston, Frontenac county, O.—Presented by S. J. Kilpatrick, 1888.—Cambro-Silurian, D 1. Six-inch cube, dressed. (5573.)
- Lot 28, range IX, of Barrie, Frontenac county, O.—Coll., C. W. Willimott, 1885.—Laurentian, A. Six-inch cube, dressed. (5223.)
- Lot 27, range IX, of Barrie, Frontenac county, O.—Coll., C. W. Willimott, 1885.—Laurentian, A. Six-inch cube, dressed. (5224.)
- From the same locality as the preceding (No. 5224) but differing in colour. (5226.)
- Lot 16, range XI, of Marmora, Hastings county, O.—Coll., H. G. Vennor, 1866.—Laurentian, A. Six-inch cube, dressed. (570.) Upright wall-case 14.
- Madoc, Hastings county, O.—Coll., H. G. Vennor.—Laurentian, A. Five and a half-inch cube, dressed. (572.)
- Bridgewater, Elzevir, Hastings county, O.—Coll., H. G. Vennor, 1866.—Laurentian, A. Six-inch cube, dressed. (573.)
- Feehey's quarry, Madoc, Hastings county, O.—Coll., C. W. Willimott, 1885.—Laurentian, A. Six-inch cube, dressed. (5181.)
- Downey's Rapids, Hog Lake, Huntingdon, Hastings county, O.—Coll., C. W. Willimott, 1884.—Cambro-Silurian, D 1. Six-inch cube, dressed. (630.)
- Point Anne quarry, near Belleville, Thurlow, Hastings county, O.—Coll., C. W. Willimott, 1884.—Cambro-Silurian, D 2. Six-inch cube, dressed. (4934.)
- St. Mary's, Perth county, O.—Coll., T. C. Weston, 1875.—Devonian, F 1. Six-inch cube, dressed. (1162.)
- Narrows of Lake Manitoba, Manitoba.—Presented by James Young, 1886.—Cambro-Silurian, D. Dressed block, 10 by 7 by  $3\frac{1}{2}$  inches. (5252.)
- Mount Mark, near Horne Lake, Vancouver Island, B.C.—Coll., J. Richardson, 1875.—Carboniferous, G? Dressed block,  $10\frac{1}{2}$  by  $4\frac{1}{2}$  by 4 inches. (2570.)
- From the same locality as the preceding (No. 2570) but differing in colour. Dressed block, 11 by  $8\frac{1}{2}$  by 4 inches. (2571.)
- Texada Island, Strait of Georgia, B.C.—Coll., J. Richardson, 1875.—Carboniferous, G? Dressed block, 5 by 5 by  $4\frac{1}{2}$  inches. (541.)
- From the same locality as the preceding (No. 541) but differing in colour. Six-inch cube, dressed. (1173.)
- From the same locality as the two preceding (Nos. 541 and 1173) but differing in colour.—Coll., G. M. Dawson, 1887. Six inch cube, dressed. (5187.)
- Metlah-Catlah Bay, B.C. Dressed block,  $7\frac{1}{2}$  by  $5\frac{1}{2}$  by 2 inches. (5082.)
- conglomerate.—Point Levis, Levis county, Q.—Cambro-Silurian, D 1. Six-inch cube, dressed. (5365.)

## BUILDING STONES—Continued.

## Limestones—Continued.

- Upright wall-case  
14.—  
Continued.
- Limestone**—Dolomitic.—Selkirk, Manitoba.—Cambro-Silurian, D. Dressed block, 6 by 6 by 5½ inches. (5044.)
- Serpentine.—Lot 1, range I. of the augmentation of Greenville, Argenteuil county, Q.—Coll., C. W. Willimott, 1884. Laurentian, A. Six-inch cube, dressed. (5246.)
- Serpentine.—Greenville, Argenteuil county, Q.—Coll., T. C. Weston, 1875.—Laurentian, A. Six-inch cube, dressed. (1151.)
- Serpentine.—Lot 3, range VI. of Pakenham, Lanark county, O.—Coll., H. G. Vennor, 1875.—Laurentian, A. Six-inch cube, dressed. (1152.)
- Serpentine.—Lot 25, range VI. of Ramsay, Lanark county, O.—Coll., H. G. Vennor.—Laurentian, A. Six-inch cube, dressed. (1159.)

## Dolomites.

- Dolomite**.—Calumet Island, Pontiac county, Q.—Coll., C. W. Willimott, 1884.—Laurentian, A. Dressed block, 5 by 4½ by 4½ inches. (4922.)
- Lot 10, range IV. of Aldfield, Pontiac county, Q.—Presented by R. H. G. Chapman, 1885.—Laurentian, A. Six-inch cube, dressed. (5130.)
- Bell's Corners, Nepean, Carleton county, O.—Coll., T. C. Weston, 1875.—Cambrian, C 2. Six-inch cube, dressed. (1170.)
- "Railway" quarry, lot 12, range XII. of Beckwith, Lanark county, O.—Coll., C. W. Willimott, 1885.—Cambrian, C 2. Six-inch cube, dressed. (5067.)
- Lot 9, range XIV. of McNab, Renfrew county, O.—E. Harrington, 1875.—Cambrian, C 2. Five-inch cube, dressed. (1169.)
- Coboconk, Bexley, Victoria county, O.—Cambro-Silurian, D. Dressed block, 7½ by 4 by 3½ inches. (3745.)
- Gibson's quarry, Grimsby, Lincoln county, O.—Coll., T. C. Weston, 1875.—Silurian, E 3. Six-inch cube, dressed. (1163.)
- Ancaster, Wentworth county, O.—Silurian, E 3. Six-inch cube, dressed. (575.)
- Hancock quarry, Jolly Cut, Hamilton Mountain, Barton, Wentworth county, O.—Coll., C. W. Willimott, 1884.—Silurian, E 3. Dressed block, 6 by 5¼ by 5¼ inches. (4933.)
- Baxter's quarry, lots 10 and 11, Jones' tract, Cayuga, Haldimand county, O.—Coll., T. C. Weston, 1875.—Silurian E 6. Six-inch cube, dressed. (587.)
- Strange's quarry, Rockwood, Eramosa, Wellington county, O.—Coll., T. C. Weston, 1875.—Silurian, E 3. Six-inch cube, dressed. (590.)
- Owen Sound, Grey county, O.—Coll., R. Bell, 1861.—Silurian, E 3. Six-inch cube, dressed. (1176.)
- Pelee Island, Lake Erie, Essex county, O.—Presented by the Toronto Stone Company, 1887.—Devonian, F 1. Six-inch cube, dressed. (5388.)
- Rapids of the Red River, above Stone Fort, Manitoba.—Coll., R. W. Ells, 1875.—Cambro-Silurian, D. Six-inch cube, dressed. (1168.)
- Stony Mountain, Manitoba.—Coll., R. W. Ells, 1875.—Cambro-Silurian, D. Six-inch cube, dressed. (1175.)

## BUILDING STONES—Continued.

## Sandstones.

- Sandstone.**—McPherson's quarry, Eight-mile Brook, West River, Pictou county, N.S.—Presented by John McPherson, 1885.—Carboniferous, G 1. Dressed block, 6 by 5 by 5 inches. (5221.)
- From the same locality as the preceding (No. 5221) but differing in colour. (5222.)
- Johnson's Brook, Glenville, Cumberland county, N.S.—Coll., W. McQuat, 1875.—Carboniferous, G 2. Six-inch cube, dressed. (1177.)
- Amherst, Cumberland county, N.S.—Presented by Rhodes, Curry & Co., 1886.—Carboniferous, G 4. (5235.)
- Rockland, Dorchester, Westmoreland county, N.B.—Coll., L. W. Bailey, 1875.—Carboniferous, G 2. Six-inch cube, dressed. (631.)
- Budreau village, Dorchester, Westmoreland county, N.B.—Coll., L. W. Bailey, 1875.—Carboniferous, G 2. Six-inch cube, dressed. (1178.)
- "Bay View" quarry, Mary's Point, Shepody Bay, Albert county, N.B.—Coll., L. W. Bailey, 1875.—Carboniferous, G 2. Six-inch cube, dressed. (1179.)
- "French Fort" quarry, Miramichi River, Newcastle, Northumberland county, N.B.—Coll., L. W. Bailey, 1875.—Carboniferous, G 2. Six-inch cube, dressed. (5574.)
- Cap Ronge, Portneuf county, Q.—Coll., T. C. Weston, 1875.—Cambrian, C 3. Six-inch cube, dressed. (597.)
- Beauharnois, Beauharnois county, Q.—Coll., J. Richardson.—Cambrian, C 1. Five and a-half inch cube, dressed. (574.)
- From the same locality as the preceding (No. 574) but differing in colour. (582.)
- Vicinity of Hawkesbury, Prescott county, O.—Cambro-Silurian, D 1. Six inch. (577.)
- Bell's Corners, Nepean, Carleton county, O.—Coll., T. C. Weston, 1875.—Cambro-Silurian, D 1. Six-inch cube, dressed. (595.)
- Bishop's quarry, lot 6, range II. of Nepean, Carleton county, O.—Coll., T. C. Weston, 1875.—Cambrian, C 1. (596.)
- Portland, Bastard, Leeds county, O.—Presented by W. J. Morris, 1882.—Cambrian, C 1. Six-inch cube, dressed. (4923.)
- McMullin's quarry, south side of Otty Lake, range VII. of North Elmsley, Lanark county, O.—Presented by W. J. Morris, 1882.—Cambrian, C 1. Six-inch cube, dressed. (4924.)
- Ramsay, Lanark county, O.—Cambrian, C 1. Six-inch cube, dressed. (579.)
- Pembroke, Renfrew county, O.—Cambro-Silurian, D 1. Dressed block, 7 by 4 by 3½ inches. (3746.)
- Rankin's quarry, Pembroke, Renfrew county, O.—Cambro-Silurian, D 1. Dressed block, 6 by 6 by 5½ inches. (576.)
- Georgetown, lot 22, range VII. of Esquesing, Halton county, O.—Coll., T. C. Weston, 1875.—Silurian, E 1. Six-inch cube, dressed. (581.)
- Farquhar & Booth's quarry, lot 21, range V. of Esquesing, Halton county, O.—Coll., T. C. Weston, 1875.—Silurian, E 1. Dressed block, 6 by 6 by 5½ inches. (598.)
- De Cew's quarry, lot 48, range I. of Oneida, Haldimand county, O.—W. De Cew, 1861.—Devonian, F 1. Five and a-half-inch cube, dressed. (578.)

Upright  
wall-case  
14.—  
*Continued.*Upright  
wall-case  
15.



## BUILDING STONES—Continued.

## Sandstones—Continued.

- Upright wall-case  
15.—  
Continued.
- Sandstone**—Mono, Dufferin county, O.—Silurian, E. I. Five and a half-inch cube, dressed. (580.)
- Dundas, Wentworth county, O.—Silurian, E. I. Five and a half-inch cube, dressed. (583.)
- "Canada Brown Stone" quarry, Forks of the Credit, Caledon, Peel county, O.—Coll., C. W. Willmott, 1884.—Silurian, E. I. Six-inch cube, dressed. (4930.)
- From the same locality as the preceding (No. 4930) but differing in colour. (4931.)
- "Credit Forks" stone quarry, Forks of the Credit, Caledon, Peel county, O.—Coll., C. W. Willmott, 1884.—Silurian, E. I. Six-inch cube, dressed. (4932.)
- From the same locality as the preceding (No. 4932) but differing in colour. Dressed block, 21 by 5 by 4 inches. (5061.)
- Forks of the Credit, Caledon, Peel county, O.—Presented by the Department of Public Works, Ottawa, 1885.—Silurian, E. I. Six-inch cube, dressed. (5231.)
- Isle Verte, Nipigon Bay, Lake Superior, O.—Coll., A. R. C. Selwyn, 1883.—Cambrian C. I. Six-inch cube, dressed. (635.)
- Newcastle Island, B. C.—Coll., J. Richardson, 1872.—Cretaceous, K. Five-inch cube, dressed. (599.)
- Nanaimo, Vancouver Island, B. C.—Coll., J. Richardson, 1872.—Cretaceous, K. (600.)
- Admiralty or Salt Spring Island, B. C.—Coll., G. M. Dawson, 1885.—Cretaceous, K. (5366.)
- Haddington Island, Broughton Strait, B. C.—Coll., G. M. Dawson, 1885.—Cretaceous, K. Dressed block, 6 by 6 by 5½ inches. (5367.)
- Ledge Point, Port McNeil, Vancouver Island, B. C.—Coll., G. M. Dawson, 1885.—Cretaceous, K. Six-inch cube, dressed. (5368.)
- Cap à l'Aigle, Murray Bay, Charlevoix county, Q.—Pitton & Co., Quebec, 1875.—Cambrian, C. I. Dressed block, 12 by 8 by 4½ inches—for paving stone. (636.)
- From the same locality as the preceding (No. 636). Dressed block 9 by 7½ by 3 inches—for curbstone. (637.)
- "Point Levis" quarry, Point Levis, Levis county, Q.—Pitton & Co., Quebec, 1875.—Cambrian, C. I. Dressed block, 9 by 7½ by 4 inches—for curbstone. (703.)
- From the same locality as the preceding (No. 703). Dressed block, 12 by 7½ by 4 inches—for paving stone. (704.)
- From the same locality as the two preceding (Nos. 703 and 704). Dressed block, 8½ by 8½ by 4 inches—for paving stone. (705.)

## Granites.

- Granite**.—Barnston, Stanstead county, Q. Six-inch cube, dressed. (569.)
- St. Joseph, Beauce county, Q. Six-inch cube, dressed. (1182.)
- "Nelson Island" quarry, Jervis Inlet, B. C.—Coll., G. M. Dawson, 1885. Six-inch cube, dressed. (5236.)
- Port Harvey, Cracroft Island, Johnstone Strait, B. C.—Coll., G. M. Dawson, 1885. Dressed block, 6½ by 5½ by 5½ inches. (5237.)

Granite—

Syenite.—

Gneiss.—S

Labradorite

Trap.—Ach

Serpentine

**BUILDING STONES**—*Continued.***Granites**—*Continued.*

- Granite**—Island in Otter Cove, Clatham Point, Discovery Passage, Vancouver Island, B.C.—Coll., G. M. Dawson, 1885. Dressed block, 6 by 6 by 5½ inches. (5238.) Upright wall-cuse 15.—*Continued.*
- "North Bend" quarry, Fraser River, B.C.—Coll., G. M. Dawson, 1885. Six-inch cube, dressed. (5380.)
- Quarry near Cantilever Bridge, Fraser River, B.C.—Coll., G. M. Dawson, 1885. Six-inch cube, dressed. (5381.)

**Syenites.**

- Syenite**.—Grenville, Argenteuil county, Q.—Laurentian, A. Six-inch cube, dressed. (585.)
- From the same locality as the preceding but differing in colour. (586.)
- Lot 2, range V. of Grenville, Argenteuil county, Q.—Laurentian, A. Six-inch cube, dressed. (592.)
- Grenville, Argenteuil county, Q.—Laurentian, A. Six-inch cube, dressed. (1184.)
- Barrow (Forsyth's) Island, River St. Lawrence, opposite Gananoque, Leeds county, O.—Laurentian, A. Six-inch cube, dressed. (594.)
- Victoria, Vancouver Island, B.C.—Coll., J. Richardson, 1875. Six-inch cube, dressed. (1181.)

**Gneisses.**

- Gneiss**.—St. Charles' reservoir, Jeanne Lorette, St. Gabriel, Quebec county, Q.—Six-inch cube, dressed. (584.)
- Lot 1, range III. of Grenville, Argenteuil county, Q.—Laurentian, A. Six-inch cube, dressed. (591.)
- Lot 2, range V. of Grenville, Argenteuil county, Q.—Laurentian, A. Six-inch cube, dressed. (1180.)

**Labradorite rock, trap rock and serpentine.**

- Labradorite rock**.—Chicoutimi village, Chicoutimi county, Q.—Laurentian, A. Six-inch cube, dressed. (941.)
- Trap**.—Achigan River, St. Esprit, L'Assomption county, Q. Six-inch cube, dressed. (589.)
- Serpentine**.—From the extreme north end of Reindeer Lake, N.W.T.—Presented by Horace Belanger, J.P., Norway House, 1889.—Archean, A. B. Six-inch cube, dressed. (1130.)

## MARBLES.

These, which are shown in the form of polished slabs, are affixed to the ends of the upright wing-cases and in the recesses of the windows.

## Limestone Marbles.

- Limestone.**—Purplish-grey with bluish-grey, whitish and greyish-black inclusions, and dull yellowish network and veinings.—Lot 22, range VII. of Dudswell, Wolfe county, Q.—Cambrian, C 1. Polished slab, 29 by 15 inches. (675.)
- Light brownish ash-grey, with dark grey and white spots; fossiliferous.—L'Original, Prescott county, O.—Cambro-Silurian, D 1. Polished slab, 29 by 14½ inches. (677.)
- Dark brownish-black, mottled.—St. Armand, Missisquoi county, Q.—Cambrian, C 3. Polished slab, 12 by 12 inches. (725.)
- White, veined with pale green.—St. Armand, Missisquoi county, Q.—Cambrian, C 3. Polished slab, 18 by 12 inches. (727.)
- Dove-grey, marked with white.—St. Armand, Missisquoi county, Q.—Cambrian, C 3. Polished slab, 18 by 12 inches. (767.)
- Bluish-grey and bluish-ash, mottled, with brownish-yellow veinings.—St. Armand, Missisquoi county, Q.—Cambrian, C 3. Polished slab, 18 by 12 inches. (782.)
- Dark grey, with clove-brown spots—fossiliferous.—Montreal, Hochelaga county, Q.—Cambro-Silurian, D 2. Polished slab, 29 by 12 inches. (734.)
- Ash-grey.—Gloucester, Carleton county, O.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (797.)
- Pale bluish-white, flecked with black.—Lot 11, range II. of Horton, Renfrew county, O.—Laurentian, A. Polished slab, 18 by 12 inches. (806.)
- Brownish-black, with dark brownish-black clouding.—Cornwall, Stormont county, O.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (808.)
- Dark brownish-grey, with white markings.—Cornwall, Stormont county, O.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (809.)
- Light greyish-white, speckled.—Elzevir, Hastings county, O.—Laurentian, A. Polished slab, 27 by 15 inches. (814.)
- Light brownish ash-grey, with dark grey and white spots; fossiliferous.—L'Original, Prescott county, O.—Cambro-Silurian, D 1. Polished slab, 14½ by 11 inches. (870.)
- Dark brownish-black.—Pointe Claire, Jacques-Cartier county, Q.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (871.)
- Brownish ash-grey.—Esquimaux Island, seigniory of Mingan, Q.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (872.)
- Dark grey; fossiliferous.—Caughnawaga, Laprairie county, Q.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (873.)
- Ashen grey, with pinkish and red spots; fossiliferous.—Caughnawaga, Laprairie county, Q.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (875.)
- White, veined with pale green.—St. Armand, Missisquoi county, Q.—Cambrian, C 3. Polished slab, 15½ by 11 inches. (876.)
- Greyish-black, with brownish-black clouding.—Mille Roches, Cornwall, Stormont county, O.—Cambro-Silurian, D 1. Polished slab, 16 by 11 inches. (877.)

Limeston

## MARBLES—Continued.

## Limestone Marbles—Continued.

- Limestone**—Light greenish-white to almost white, with dark greenish and brownish spots.—Grenville, Argenteuil county, Q.—Laurentian, A. Polished slab, 13½ by 11 inches. (878.)
- Bluish-grey and bluish-ash, mottled, with brownish-yellow veinings.—St. Armand, Missisquoi county, Q.—Cambrian, C 3. Polished slab, 15 by 11 inches. (879.)
- Light purplish-white, light grey and bluish-grey, mottled, with brownish-yellow veinings.—Lot 22, range VII. of Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 18 by 12 inches. (880.)
- Very pale brownish-yellow, with brownish-yellow and light to dark bluish-grey veinings.—Lot 22, range VII. of Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 18 by 12 inches. (881.)
- Light, dark grey, greyish-black, and light and dark brownish-yellow, mottled.—Lot 22, range VII. of Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 18 by 12 inches. (882.)
- Greyish-black, with brownish-black clouding and white markings; fossiliferous.—Lot 22, range VII. of Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 18 by 12 inches. (883.)
- White to faint greenish-white, with brown and blackish specks.—Lot 22, range VII. of Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 18 by 12 inches. (884.)
- Dark grey to light greyish-black, with white markings; fossiliferous.—Montreal, Hochelaga county, Q.—Cambro-Silurian, D. Polished slab, 29 by 18 inches. (885.)
- Very pale brownish-yellow, with brownish-yellow and light to dark bluish-grey veinings.—Lot 22, range VII. of Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 47 by 25½ inches. (887.)
- Greyish-white.—Marble Mountain, Bras d'Or Lake, Cape Breton, N.S.—Pre-Cambrian, A. B. Polished slab, 18½ by 18½ inches. (888.)
- Whitish to bluish-grey, with light and dark bluish-grey markings.—Amprior, Roufrew county, O.—Laurentian, A. Polished slab, 47 by 24 inches. (891.)
- Light purplish-brown, bluish-grey light to dark, with brownish-yellow and whitish veinings.—Lot 22, range VII. of Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 30 by 6½ inches. (894.)
- Sepia brown, with brownish-black clouding.—Pakenham, Lanark county, O.—Cambro-Silurian, D 1. Polished slab, 29 by 8½ inches. (895.)
- Dark grey and greyish-black, mottled; fossiliferous.—Lot 12, range VI. of Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 18 by 15 inches. (897.)
- Light bluish-grey and bluish-ash, mottled, with light and dark grey veinings.—From near Beaver Cove, north-east coast of Vancouver Island, B.C.—Coll., G. M. Dawson, 1885. Polished slab, 18 by 12 inches. (898.)
- Light greyish-white and bluish-ash, clouded, with bluish-grey and brownish veins.—Texada Island, Strait of Georgia, B.C.—Carboniferous, G? Polished slab, 18 by 12 inches. (901.)
- Light and dark bluish-ash, clouded, with greyish-black spots and veinings.—Texada Island, Strait of Georgia, B.C.—Carboniferous, G? Polished slab, 18 by 12 inches. (903.)

## MARBLE—Continued.

## Limestone Marbles—Continued.

- Limestone**—Dark greyish-black, with light greyish, brownish-yellow and white markings, and bluish-ash fossils.—Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 24 by 14 inches. (904.)
- Brownish-grey, with white and pale brownish fossils.—Departure Bay, Nanaimo, Vancouver Island, B.C.—Coll., G. M. Dawson, 1885.—Polished slab, 18 by 10½ inches. (905.)
- Light greyish-white.—Elzevir, Hastings county, O.—Laurentian, A. Polished slab, 18 by 12 inches. (906.)
- Purplish-grey, bluish-grey, whitish, and light and dark greyish-black blotches and inclusions, and white and brownish-yellow veinings.—Lot 22, range VII, of Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 29 by 14 inches. (908.)
- White.—St. Armand, Missisquoi county, Q.—Cambrian, C 3. Polished slab, 29 by 15 inches. (912.)
- Light purplish-brown, bluish-grey light to dark, with brownish-yellow and whitish veinings.—Lot 22, range VII, of Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 29 by 15 inches. (916.)
- Light greyish-white, speckled.—Elzevir, Hastings county, O.—Laurentian, A. Polished slab, 29 by 14 inches. (917.)
- Whitish calcite, flecked and spotted with brownish-yellow serpentine.—Grenville, Argenteuil county, Q.—Laurentian, A. Polished slab, 18 by 12 inches. (919.)
- Light bluish to purplish-grey calcite, with light and dark yellowish and olive-green serpentine.—Lot 1, range I, of the Augmentation of Grenville, Argenteuil county, Q.—Laurentian, A.—Coll., C. W. Willimott, 1885. Polished slab, 18 by 12 inches. (922.)
- Light greyish-white calcite, with clouding of pale greenish and olive-green serpentine.—Grenville, Argenteuil county, Q.—Laurentian, A. Polished slab, 18 by 12 inches. (924.)
- Light greenish-white to almost white, with dark greenish and brownish spots.—Grenville, Argenteuil county, Q.—Laurentian, A. Polished slab, 18 by 12 inches. (925.)
- Light grey to light purplish-grey calcite, and olive-green serpentine.—Grenville, Argenteuil county, Q.—Laurentian, A. Polished slab, 18 by 12 inches. (926.)
- Brownish-black, with dark brownish-black markings; fossiliferous.—Cornwall, Stormont county, O.—Cambro-Silurian, D 1. Polished slab, 29 by 17 inches. (929.)
- Greyish-black, with brownish-black clouding.—Mille Roches, Cornwall, Stormont county, O.—Cambro-Silurian, D 1. Polished slab, 32 by 18 inches. (930.)
- Light brownish ash-grey, with whitish and brownish inclusions; fossiliferous.—Large Island, Seigneurie of Mingan, Q.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (936.)
- Dark brownish-grey, with brownish-black clouding.—Pointe Claire, Jacques Cartier county, Q.—Cambro-Silurian, D 1. Polished slab, 29 by 16½ inches. (954.)
- Dark brownish-grey.—Cornwall, Stormont county, O.—Cambro-Silurian, D 1. Polished slab, 17 by 10½ inches. (955.)
- Light reddish-brown, with greenish-grey and white veins and markings.—Lot 22, range VII, of Shipton, Richmond county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (961.)
- Light and dark purplish-red, white, and light green.—Lot 22, range VII, of Shipton, Richmond county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (962.)

Limesto

## MARBLÉS—Continued.

## Limestone Marbles—Continued.

- Limestone**—White, light purplish-grey, purplish and light green.—Lot 22, range VII. of Shipton, Richmond county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (963.)
- Very pale brownish-yellow, with brownish-yellow, and light to dark bluish-grey veinings.—Lot 22, range VII. of Dunsdell, Wolfe county, Q.—Silurian, E 3. Polished slab, 14½ by 11 inches. (976.)
- Dark brownish-grey, with brownish-black clouding.—Pointe Claire, Jacques Cartier county, Q.—Cambro-Silurian, D 1. Polished slab, 12 by 11¾ inches. (989.)
- Light grey to light purplish-grey calcite, and olive-green serpentine.—Greenville, Argenteuil county, Q.—Laurentian, A. Polished slab, 14 by 10¾ inches. (991.)
- Light reddish-brown, with greenish-grey and white veins.—Lot 3, range I. of Kingsey, Drummond county, Q.—Cambrian, C. Polished slab, 18 by 12 inches. (992.)
- White (in parts purplish) calcite, spotted with pale olive-green serpentine.—Lot 14, range IX. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1885—Laurentian, A. Polished slab, 18 by 12 inches. (993.)
- Light to dark reddish-brown, with veins of white calcite.—Lot 3, range I. of Kingsey, Drummond county, Q.—Cambrian, C. Polished slab, 18 by 12 inches. (996.)
- Dove-grey, marked with white.—St. Armand, Missisquoi county, Q.—Cambrian, C 3. Polished slab, 29 by 10 inches. (997.)
- Dark brownish-grey, with brownish-black clouding.—Pointe Claire, Jacques Cartier county, Q.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (1144.)
- Pinkish-white, penetrated by crystals of light greenish-grey tremolite.—Lot 28, range IX. of Barrie, Frontenac county, O.—Laurentian, A. Polished slab, 18 by 12 inches. (1148.)
- Light to dark reddish-brown, with veins of white calcite.—Lot 1, range VIII. of Durham, Drummond county, Q.—Cambrian, C. Polished slab, 18 by 12 inches. (1160.)
- Dark grey, with dark brownish-grey clouding and some greyish spots; fossiliferous.—Terrebonne, Terrebonne county, Q.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (1185.)
- Light to dark brownish-red, with white veinings.—St. Joseph, Beauce county, Q.—Cambrian, C. Weathered slab, 29 by 15½ inches. (4863.)
- Ash-grey, with dark grey and white spots, and network of light greenish-grey; fossiliferous.—L'Original, Prescott county, O.—Cambro-Silurian, D 1. Weathered slab, 29 by 14½ inches. (4864.)
- White, with light and dark bluish-grey markings (banded structure).—East half of lot 21, range X. of Lanark, Lanark county, O.—Coll., C. W. Willimott, 1885.—Laurentian, A. Polished slab, 18 by 7 inches. (4876.)
- Dark brownish-black, mottled.—St. Armand, Missisquoi county, Q.—Cambrian, C 3. Polished slab, 18 by 12 inches. (4868.)
- Dove-grey.—St. Dominique, Soulanges county, Q.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (4869.)
- Ash-grey, with dark grey and white spots, and network of light greenish-grey; fossiliferous.—L'Original, Prescott county, O.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (4870.)

## MARBLÉS—Continued.

## Limestone Marbles—Continued.

- Limestone**—Brownish-black, with dark brownish-black clouding.—Pointe Claire, Jacques Cartier county, Q.—Cambro-Silurian, D 1. Polished slab, 18 by 12 inches. (4871.)
- Ashen grey, with pinkish and red spots; fossiliferous.—Canginawaga, Laprairie county, Q.—Cambro-Silurian, D 1. Polished slab, 29 by 17½ inches. (4872.)
- White, and light bluish-grey, with dark bluish-grey markings.—East half of lot 21, range X, of Lanark, Lanark county, O.—Coll., C. W. Willimott, 1885.—Laurentian, A. Polished slab, 18 by 12 inches. (4875.)
- Light to dark brownish-red, with white veinings.—St. Joseph, Beauce county, Q.—Cambrian, C 1. Polished slab, 25 by 16 inches. (4877.)
- Dark greyish-black, with light greyish, brownish-yellow and white markings.—Dudswell, Wolfe county, Q.—Presented by the Dudswell Marble and Lime Company, 1886.—Silurian, E 3. Polished slab, 23 by 9 inches. (4878.)
- Light bluish-grey, with dark grey veins, wavy structure.—Lot 1, range VIII, of Madoc, Hastings county, O.—Coll., C. W. Willimott, 1885.—Laurentian, A. (4879.)
- Light to dark brownish-red, with white veinings.—St. Joseph, Beauce county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (4880.)
- Coralline.—Bluish-grey, with light and dark greyish-black markings, and brownish-yellow veinings.—Dudswell, Wolfe county, Q.—Silurian, E 3. Polished slab, 18 by 12 inches. (4881.)
- Light to dark bluish-grey, with veinings of white calcite.—Dudswell, Wolfe county, Q.—Presented by the Dudswell Marble and Lime Company.—Silurian, E 3. Polished slab, 21 by 8½ inches. (4882.)
- Pale and dark salmon-red.—Ironsides, Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1885.—Laurentian, A. Polished slab, 24½ by 12 inches. (4961.)
- Light brown to brownish-red, with reddish-brown, white, and greyish inclusions; fossiliferous.—St. Lin, L'Assomption county, Q.—Cambro-Silurian, D 1. Polished slab, 56 by 24½ inches. (4962.)

## Serpentine Marbles.

- Serpentine**—Light and dark green.—Lot 21, range VI, of Melbourne, Richmond county, Q.—Cambrian, C 1. Polished slab, 29 by 12 inches. (735.)
- Light and dark green, brecciated.—Lot 6, range XIII, of Orford, Sherbrooke county, Q.—Cambrian C 1. Polished slab, 29 by 15½ inches. (810.)
- Light and dark green, with veins of white calcite (Verd Antique).—Lot 22, range VI, of Melbourne, Richmond county, Q.—Cambrian, C 1. Polished slab, 29 by 18 inches. (885.)
- Light and dark green, brecciated, with inclusions of white calcite (Verd Antique).—Lot 12, range VIII, of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 40 by 19 inches. (890.)
- Light and dark green, brecciated, with veins of white calcite.—Lot 6, range XIII, of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 47 by 25½ inches. (893.)

## MARBLES—Continued.

## Serpentine Marbles—Continued.

- Serpentine**—Light and dark green, with light greenish-grey markings.—Lot 20, range X. of Melbourne, Richmond county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (907.)
- Light purplish-grey, light green, and light and dark greenish-grey.—Lot 20, range V. of Melbourne, Richmond county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (913.)
- Light and dark green.—Lot 21, range VI. of Melbourne, Richmond county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (931.)
- Light and dark green and greenish-grey to grey, brecciated.—Lot 15, range XVIII. of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (932.)
- Light and dark green, with network and veinings of light greyish-green.—Lot 6, range XIII. of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (933.)
- Greenish-grey and light green, with dark green and greenish-black inclusions and markings.—Lot 5, range B. of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (934.)
- Light to dark reddish-brown, with light green and white veinings.—Lot 7, range A. of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (935.)
- Pale olive-green and light to dark brownish-yellow, with inclusions and veinings of light to dark green serpentine.—Lot 21, range VI. of Melbourne, Richmond county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (937.)
- Greenish-grey, light green and dark greyish-green, with inclusions of white and bluish-grey calcite.—Lot 5, range B. of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (938.)
- Light purplish and greenish-grey, with inclusions of white (calcite) and dark green and greenish-black.—Lot 6, range XIII. of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (940.)
- Light green and greenish-grey, with markings of white calcite.—Lot 6, range XIII. of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (944.)
- Greenish-grey, light green and dark greyish-green, with inclusions of white calcite, structure in parts brecciated.—Lot 5, range B. of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 18 by 12 inches. (948.)
- Dark green, with olive and light green network, brecciated.—Lot 15, range XVIII. of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 29 by 18 inches. (950.)
- Olive-green, and light and dark green.—Lot 8, range III. of Ship-ton, Richmond county, Q.—Cambrian, C 1.—Polished slab, 18 by 12 inches. (960.)
- Dark green, with network of olive and light green, and inclusions of white calcite, brecciated.—Lot 6, range XIII. of Orford, Sherbrooke county, Q.—Cambrian C 1.—Polished slab, 11½ by 8¼ inches. (964.)
- Light and dark green.—South Ham, Wolfe county, Q.—Cambrian, C 1. Polished slab, 14½ by 7 inches. (988.)
- Light and dark green, with light greenish-grey markings.—Lot 20, range V. of Melbourne, Richmond county, Q.—Cambrian, C 1. Polished slab, 29 by 10 inches. (1143.)



## MARBLES—Continued.

## Serpentine Marbles—Continued.

- Serpentine**—Light brownish-green and light green, with inclusions of calcite.—Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 13 by 10 inches. (4867.)
- Light and dark green.—Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 29 by 18 inches. (4873.)
- Light and dark green, with inclusions of white calcite, brecciated. (Verl' Antique).—Lot 7, range VIII. of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished slab, 43½ by 15 inches. (4963.)
- Dark green, with olive and light green network, brecciated.—Lot 6, range XIII. of Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished block, 18 by 14 by 2 inches. (5035.)
- Light and dark green, with purplish-brown markings.—Brompton Lake, Orford, Sherbrooke county, Q.—Cambrian, C 1. Polished block, 18 by 12 by 4 inches. (5036.)
- Jasper conglomerate**.—Bruce Mines, Lake Huron, district of Algoma, O.—Huronian, B. Polished block, 18 by 15 by 4 inches. (5037.)
- Volcanic breccia**.—Made up of brownish-red, brownish-yellow, reddish-brown, greenish-grey, brown (sepia) and red fragments and particles. —From one of the Ballinac Islands, B.C. Polished slab, 18 by 12 inches. (899.)

Polished columns and pedestals of limestone and serpentine marbles and of other ornamental stones occupy a position immediately in front of some of the windows, also at either end of the central series of table-cases, and occasionally against the wall.

The following series of cut and polished specimens of :

## ARCHEAN AND PALÆOZOIC ROCKS.

are arranged in a frame attached to the wall.

## PRE-CAMBRIAN ROCKS.

## Laurentian Rocks.

- Felspar-porphyry**.—Chatham, Argenteuil county, Q. (1025.)
- do do do (1026.)
- do do do (1027.)
- Grenville do do (1028.)
- do do do (1029.)
- do do do (1032.)
- Diorite**.—Bradore Bay, Saguenay county, Q. (1030.)
- Syenitic-porphyry**.—Great Mecatina Harbour, Saguenay county, Q. (1031.)
- Conglomerate**.—Wentworth do do (1033.)
- Siliceous breccia**.—Grenville do do (1034.)
- Agglomerate**.— do do do (1035.)
- do do do (1036.)
- Limestone**.—Araprior, Renfrew county, O. (1037.)
- Garnetiferous gneiss**.—River Rouge, Argenteuil county, Q. (1038.)
- Albite** (peristerite).—Bathurst, Lanark county, O. (1039.)
- Perthite**.—North Burgess do do (1040.)

Anort.

Gneiss

Banded  
GraniteGranitic  
VeinstoDiabase  
Breccia.  
Cuprifer  
Breccia.Limeston  
Breccia.

Serpenti

Porphyry  
Amygda.  
Diorite  
Porphyry

## ARCHEAN AND PALÆOZOIC ROCKS—Continued.

## PRE-CAMBRIAN ROCKS—Continued.

## Laurentian Rocks—Continued.

- Anorthosite.**—Wolfe, Argenteuil county, Q. (1041.)  
 — Peribonka River, Lake St. John, Chicoutimi county, Q. (1042.)  
**Gneiss.**—Goules Island, (1043.)  
 — Grenville, Argenteuil county, Q. (1044.)  
 — Saguenay county, Q. (1045.)  
 — Batchewahung Bay, Lake Superior, O. (1046.)  
 — North shore of Lake Huron, O. (1048.)  
 — Great Meentina River, Saguenay county, Q. (1049.)  
 — Chatham, Argenteuil county, Q. (1052.)  
 — Watcheeshoo Bay, Mingan, Saguenay county, Q. (1053.)  
 — Harrington, Argenteuil county, Q. (1054.)  
 — Ramsay, Lamark county, O. (1055.)  
 — Ha-ha Bay, Saguenay county, Q. (1056.)  
 — Mingan do do (1057.)  
 — Ramsay, Lamark county, O. (1058.)  
 — Wilson's camp. (1059.)  
 — Manitou River, Mingan, Saguenay county, Q. (1060.)  
 — Saguenay county, Q. (1062.)  
 — Watcheeshoo Bay, Mingan, Saguenay county, Q. (1063.)  
 — Grenville, Argenteuil county, Q. (1064.)  
 — do do do (1065.)  
 — Mutton Bay, Saguenay county, Q. (1066.)  
 — Esquimaux Bay, Saguenay County, Q. (1068.)  
**Banded quartzite.**—Pillage Bay, Mingan, Saguenay county, Q. (1061.)  
**Granite.**—Goddard Island, Labrador. (1047.)  
 — Gananoque, Leeds county, O. (1050.)  
**Granitic veinstone.**—Wentworth, Argenteuil county, Q. (1067.)  
**Veinstone.**—Lake St. John, Chicoutimi county, Q. (1051.)

## Huronian Rocks.

- Diabase porphyry.**—Batchewahung Bay, Lake Superior, O. (1069.)  
**Breccia.**—Drummondville, Drummond county, Q. (1070.)  
**Cupriferous breccia.**—Acton, Bagot county, Q. (1071.)  
**Breccia.**—Wendover, Drummond county, Q. (1072.)  
 — Belœil, Rouville county, Q. (1073.)  
 — do do do (1074.)  
 — Farnham, Brome do (1075.)  
**Limestone breccia.**—Ste. Marguerite, Dorchester county, Q. (1076.)  
**Breccia.**—Kingsey, Richmond county, Q. (1077.)  
 — Drummondville, Drummond county, Q. (1078.)  
**Serpentine.**—Cleveland, Richmond county, Q. (1079.)  
 — M. Bourne, do do (1080.)  
**Porphyry.**—Drummondville, Drummond county, Q. (1081.)  
**Amygdaloid.**—Maddington Mines, Nicolet county, Q. (1082.)  
**Diorite breccia.**—Wendover, Drummond county, Q. (1083.)  
**Porphyry.**—Drummondville do do (1084.)

## ARCHEAN AND PALÆOZOIC ROCKS—Continued.

## PRE-CAMBRIAN ROCKS—Continued.

## Huronian Rocks—Continued.

Diorite.—Melbourne, Richmond county, Q.	(1085.)		
Quartzite.—Loc. ?	(1086.)		
Granite.—Cleveland, Richmond county, Q.	(1087.)		
Granitoid conglomerate.—St. Gervais, Bellechasse county, Q.	(1088.)		
Limestone.—Stukely, Shefford county, Q.	(1089.)		
Conglomerate.—Mississagui River, Lake Huron, O.	(1090.)		
Limestone.—Portlock Harbour	do	(1091.)	
Jasper conglomerate.—Bruce Mines	do	(1092.)	
Conglomerate.—	do	(1093.)	
Jasper conglomerate.—	do	(1094.)	
Quartz conglomerate.—	do	(1095.)	
Felspathic sandstone.—Walker's Lake, district of Algoma, O.	(1096.)		
Altered sandstone.—Echo Lake, district of Algoma, O.	(1097.)		
Schist.—St. John, St. John county, N.B.	(1098.)		
Breccia.—Batchewanning Bay, Lake Superior, O.	(1099.)		
Indurated slate.—Sturgeon River, district of Nipissing, O.	(1100.)		
Blackish-green serpentine.—Pistolet Bay, Newfoundland.	(1101.)		
Fine grained greenish felspathic rock.—			(1102.)
Olive-green, fine grained calcareous diorite.—	do	do	(1103.)
Greyish-green diorite.—	do	do	(1104.)
Fine grained calcareous diorite.—	do	do	(1105.)
Fine grained felspathic rock.—	do	do	(1106.)
Black slate, with greyish-black clouds.—	do	do	(1107.)
Serpentine, traversed by bands of diorite.—	do	do	(1108.)
Fine grained black slate.—	do	do	(1109.)
Gneiss.—Portlock Harbour, Lake Huron, O.—	do	do	(1122.)

## CAMBRIAN ROCKS.

Amygdaloid.—Harmony River, Lake Superior, O.	(1110.)
Trap.—Victoria Island, Lake Superior, O.	(1111.)
Limestone.—St. Armand, Missisquoi county, Q.	(1112—1118.)
Quartz conglomerate.—St. Nicholas, Lévis county, Q.	(1119.)
Porphyritic diorite.—Gaspé county, Q.	(1120.)
Calcareous slate.—Martin River, Christie, Gaspé county, Q.	(1121.)
Coarsely crystalline red dolomite.—Marquette, Lake Superior (south shore).	(1123.)
Grey chert, banded with red dolomite.—Marquette, Lake Superior (south shore).	(1124.)

## BRICK-CLAYS AND BRICKS, COMMON AND ORNAMENTAL, AND DRAIN-TILES.

Upright wing-case 16.	Brick-clay.—Salt Springs, parish of Dorchester, Antigonish county, N.S. (5337.) (1) Brick (red) made from clay No. 5337.—J. Chisholm. 1886. (5337a.)
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**BRICK CLAYS AND BRICKS, ETC.—Continued.**

- Brick-clay**—Antigonish, Antigonish county, N.S. (5394.)  
 (1) Brick (red) made from clay No. 5394.—Samuel Hulbert, 1886. (5394a.)
- Clarendon, Cumberland county, N.S. (5126.)
- Avonport, King's county, N.S.—Jacob Walton, 1885. (5172.)
- River Denys, near the cross road, Inverness county, N.S.—Presented by Hon. W. McDonald, 1885. (3601.)
- From the mouth of the harbor, Charlottetown, Queen's county, P.E.I. (4937.)
- Fredericton, York county, N.B.—Coll., R. Chalmers, 1884. (4948.)
- Fairville, St. John county, N.B.—Coll., R. Chalmers, 1884. (4949.)  
 (1) Flooring tile (red) made from clay No. 4949. J. Lee & Co., 1885. (4949a.)
- Lewisville, Westmoreland county, N.B.—Coll., R. Chalmers, 1884. (4950.)
- Vicinity of Three Rivers, St. Maurice county, Q.—brick made from. (604.)
- St. John's, St. John's county, Q.—A. Mochon, 1875. (619.)
- St. John's do do —employed for pottery.—E. H. and L. E. Farrar, 1875. (1139.)
- Montreal, Hochelaga county, Q. (601.)  
 (1) Brick (red) made from clay No. 601.—Bulmer and Shepard, 1875. (601a.)
- Montreal, Hochelaga county, Q.—employed for pottery.—R. Bannerman, 1875. (1146.)
- Yamaska, Yamaska county, Q.—brick (red) glazed, made from. (609.)
- St. Jean, Lotbinière county, Q. (1140.)
- Lot 20, range III. of Kenyon, Glengarry county, O. (5146.)  
 (1) Stock brick (red), machine-made, made from clay No. 5146.—D. McGillivray, Athol Brick Yard, 1885. (5146a.)
- Lot 10, range V. of Russell, Russell county, O. (5177.)  
 (1) Stock brick (red), machine-made, made from clay No. 5177.—H. Rombaugh, 1885. (5177a.)
- New Edinburgh, Carleton county, O. (1198.)  
 (1) Marl, New Edinburgh, Carleton county, O. (1198a.)  
 (2) Ornamental bricks (white), made from clay No. 1198 by admixture of same with a calcareous marl—No. 1198a.—T. M. Clarke. (1198b.)
- Archville, Nepean, Carleton county, O. (5073.)  
 (1) Stock brick (red), machine-made, made from clay No. 5073.—H. C. Odell, Ottawa, O., 1885. (5073a.)
- Bell's Corners, Nepean, Carleton county, O. (1142.)
- Richmond, Goulburn do do (5179.)  
 (1) Stock brick (red), machine-made, made from clay No. 5179.—H. McElroy & Son, 1885. (5179a.)
- Lot 17, range XI. of Beckwith, Lanark county, O.—W. Willoughby, Carleton Place, O., 1885. (5071.)
- Lot 14, range VIII. of Ramsay, Lanark county.—J. Metcalfe, 1875. (1136.)
- Lot 20, range VIII. of Ramsay, Lanark county, O.—David Moore, Almonte, O., 1885. (5069.)
- Pembroke, Renfrew county, O. (5072.)  
 (1) Stock brick (red), hand-made, made from clay No. 5072.—Thomas Cashmore, 1885. (5072a.)

Upright  
wing-case  
16.—  
Continued.

—Continued.  
 Q. (1088.)  
 O. (1096.)  
 1097.)  
 (1100.)  
 (1101.)  
 foundland. (1102.)  
 do (1103.)  
 do (1104.)  
 do (1105.)  
 do (1106.)  
 do (1107.)  
 do (1108.)  
 do (1109.)  
 do (1122.)  
 (1121.)  
 rior (south shore).  
 Superior (south  
 ND ORNA-  
 sh county, N.S.  
 —D. Chisholm.

BRICK CLAYS AND BRICKS, ETC.—*Continued.*

- Upright  
wing-case  
16.—  
*Continued.*
- Brick-clay**—Lot 30, range I. of Stafford, Renfrew county, O.—Jas. Johnson, Pembroke, O. (5068.)
- East half of lot 7, range XIII. of McNab, Renfrew county, O.—Wm. Baker, Arnprior, O., 1885. (5070.)
- Brockville, Leeds county, O. (5173.)
- (1) Brick (white) made from clay No. 5173.—A. Odell, 1885. (5173a.)
- Brockville, Leeds county, O. (5175.)
- (1) Brick (red) made from clay No. 5175. (5175a.)
- Kingston, Frontenac county, O. (4956.)
- (1) Stock brick (red), hand-made, made from clay No. 4956.—Johnson Day, Waterloo, O., 1885. (4956a.)
- (2) Soft brick (red), made from clay No. 4956.—J. McMichael, Kingston, O., 1885. (4956b.)
- (3) Stock brick (red), machine-made, made from clay No. 4956.—Edward Riley, Cataraqui, O., 1885. (4956c.)
- Bloomfield, Hallowell, Prince Edward county, O. (5154.)
- (1) Stock brick (red), machine-made, made from clay No. 5154.—A. B. Saylor, 1885. (5154a.)
- Belleville, Thurlow, Hastings county, O. (4957.)
- (1) Unburnt brick, made from clay No. 4957. (4957a.)
- (2) Stock brick (red), machine-made, made from clay No. 4957. (4957b.)
- (3) Stock brick (red), hand-made, made from clay No. 4957. (4957c.)
- (4) Pressed brick (red), made from clay No. 4957.—C. H. La Roche & Co., 1885. (4957d.)
- (5) Ornamental brick (red), made from clay No. 4957.—N. Lingham, 1885. (4957e.)
- Lot 12, range I. of Rawdon, Hastings county, O. (5162.)
- (1) Stock brick (red), machine-made, made from clay No. 5162.—R. Langman, 1885. (5162a.)
- East half of lot 32, range XII. of Otonabee, Peterborough county, O. (5160.)
- (1) Stock brick (red), machine-made, made from clay No. 5160.—M. Curtis & Sons, 1885. (5160a.)
- Darlington, Durham county, O. (5166.)
- (1) Stock brick (red), made from clay No. 5166.—R. Hambly, Bowmanville Brick and Tile Yard, 1885. (5166a.)
- Penetanguishene, Simcoe county, O. (5168.)
- (1) Stock brick (red), machine-made, made from clay No. 5168.—C. Beck & Co., 1885. (5168a.)
- Hamilton, Barton, Wentworth county, O. (4951.)
- (1) Stock brick (red), machine-made, made from clay No. 4951.—W. Hancock, 1885. (4951a.)
- (2) Pressed brick (red), made from clay No. 4951. (4951b.)
- (3) Ornamental brick (red), made from clay No. 4951.—Isaac Beers, 1885. (4951c.)
- (4) Pressed brick (white), made from clay No. 4951.—F. Childs, 1885. (4951d.)
- Owen Sound, Grey county, O. (1131.)
- (1) Stock brick (red), machine-made, made from clay No. 1131. (1131a.)
- (2) Pressed brick (red), made from clay No. 1131. (1131b.)
- (3) Stock brick (white), made from clay No. 1131, employing a different sand. (1131c.)

BRICK CLAYS AND BRICKS, ETC.—*Continued.*

- Brick-clay**—Brant, Bruce county, O. (5156.)
- (1) Stock brick (white), machine-made, made from clay No. 5156.—Charles Scarborough, Hanover Brick Yard, 1885. (5156a.)
- Port Elgin, Bruce county, O. (5158.)
- (1) Stock brick (white), machine-made, made from clay No. 5158.—Henry Smith, 1885. (5158a.)
- Kincairdine, Bruce county, O.—George Riggins, 1875. (1137.)
- Stephen, Bruce county, O. (5164.)
- (1) Pressed brick (white), made from clay No. 5164. (5164a.)
- Linchouse, Halton county, O. (558, 602.)
- suitable for the manufacture of terra cotta.—East half of lot 2, range VII. of Nassagaweya, Halton county, O. (970.)
- (1) Ornamental bricks, made from clay No. 970. (970a.)
- (2) Medallions, made from clay No. 970. (970b.)—Toronto Pressed Brick and Terra Cotta Company—Works, Milton, O.—Presented by Hon. G. C. McKindsey, 1880.
- Yorkville, Toronto, York county, O. (556.)
- (1) Stock brick (white), machine-made, made from clay No. 556.—Wm. Greensides, 1885. (556a.)
- (2) Stock brick (white), machine-made, made from clay No. 556.—T. Nightingale, 1885. (556b.)
- (3) Stock brick (white), machine-made, made from clay No. 556.—J. Gibson, 1885. (556c.)
- (4) Pressed brick (white) made from clay No. 556.—Yorkville and Carlton Brick Manufacturing Company, 1885. (556d.)
- (5) Drain-tiles (white), made from clay No. 556.—T. Nightingale, 1885. (556e.)
- (6) Drain-tiles (white), made from clay No. 556.—Bulmer and Douglas. (556f.)
- (7) Drain-tiles (white), made from clay No. 556.—J. Sheppard, 1885. (556g.)
- Yorkville, Toronto, York county, O. (1134.)
- (1) Stock brick (red), machine-made, made from clay No. 1134.—Wm. Greensides, 1885. (1134a.)
- (2) Drain-tiles (red), made from clay No. 1134.—T. Nightingale, 1875. (1134b.)
- Leslie Street, Toronto, York county, O. (4952.)
- (1) Stock brick (grey), machine-made, made from clay No. 4952.—J. Price, 1885. (4952a.)
- Leslie Street, Toronto, York county, O. (4953.)
- (1) Stock brick (mottled), machine-made, made from a mixture of clays Nos. 4952 and 4953.—J. Cook, 1885. (4953a.)
- Doncaster, York county, O. (4954.)
- (1) Stock brick (red), hand-made, made from clay No. 4954.—H. P. Phillips, 1885. (4954a.)
- Carlton West, York county, O. (4955.)
- (1) Stock brick (red), machine-made, made from clay No. 4955.—Yorkville and Carlton Brick Manufacturing Company. (4955a.)
- (2) Pressed brick (red), made from clay No. 4955. (4955b.)
- (3) Ornamental brick (red), made from clay No. 4955.—Geo. Townsley, 1885. (4955c.)
- (4) Ornamental brick (red), made from clay No. 4955. (4955d.)

Upright  
wing-case  
16.—  
*Continued.*

Upright  
wing-case  
17.

## BRICK CLAYS AND BRICKS, ETC.—Continued.

- Upright  
wing-case  
17.—  
Continued.
- Brick-clay** Carlton West, York county, O. (4955.)—Continued.  
 (5) Elbow for drain-tiles, made from clay No. 4955.—M. Wakefield, 1886. (4955a.)
- Lot 22, range I. of Clinton, Lincoln county, O. (5192.)  
 (1) Stock brick (red), machine-made, made from clay No. 5192. (5192a.)  
 (2) Drain-tiles (red), made from clay No. 5192.—Wm. Tallman & Son, Pennsville, O., 1885. (5192b.)
- Tilsenburgh, Oxford county, O. (5150.)  
 (1) Stock brick (white), machine-made, made from clay No. 5150.—Edwin D. Tillson, 1885. (5150a.)
- Lot 29, range II. of Bertie, Welland county, O. (5152.)  
 (1) Stock brick (white), machine-made, made from clay No. 5152.—A. Detterling, 1885. (5152a.)
- Westminster, Middlesex county, O. (5170.)  
 (1) Stock brick (white), machine-made, made from clay No. 5170.—James Johnson, London, O., 1885. (5170a.)
- London, Middlesex county, O.—S. Russell, 1875. (1141.)
- London, do do —employed for pottery.—C. Pratt, 1875. (1138.)
- Lot 2, range VI. Ekfrid, Middlesex county, O. (5142.)  
 (1) Pressed brick (white), made from clay No. 5142.—F. W. Wade, Valley Brick Yard, 1885. (5142a.)
- Brantford, Brant county, O.—H. Workman, 1875. (1145.)
- St. Thomas, Elgin county, O. (5148.)  
 (1) Pressed brick (white), made from clay No. 5148.—M. C. Freck, 1885. (5148a.)
- Winnipeg, Manitoba, 9' below the surface. (860.)
- Winnipeg do 12' do (861.)
- Winnipeg do 16' do (862.)  
 Presented by Daniel Smith, 1884.
- Stony Mountain, Manitoba.—Barclay and Morrison, 1875. (603.)
- White Mud River, from base of Fox Hills, district of Assiniboia, N.W.T.—Coll., R. G. McConnell, 1883. (3654.)
- White Mud River, near the mouth of Farewell Creek, district of Assiniboia, N.W.T. (5243.)
- Arenaceous clay, occurring in connection with No. 5243.—Coll., R. G. McConnell, 1883. (5811.)
- Vicinity of Pasqua, township 15, range XXV. west of the 2nd initial meridian, district of Assiniboia, N.W.T.—Coll., R. G. McConnell, 1883. (5245.)
- From above the boulder clay.—Eight miles above the Forks of the Red Deer River, district of Assiniboia, N.W.T.—Coll., R. G. McConnell, 1883. (4666.)
- Cypress Hills, district of Assiniboia, N.W.T.—Coll., R. G. McConnell, 1883. (4667.)
- From lignite deposit.—South Saskatchewan River, south side, about six miles above Medicine Hat, district of Assiniboia, N.W.T.—Coll., T. C. Weston, 1884. (4958.)
- Crooked Creek, near Waterton Lake, district of Alberta, N.W.T.—Coll., T. C. Weston, 1883. (3531.)
- Interbedded in boulder clay.—Coal Banks, Belly River, district of Alberta, N.W.T.—Coll., T. C. Weston, 1883. (3533.)
- Three miles above Coal Banks, Belly River, district of Alberta, N.W.T.—Coll., T. C. Weston, 1883. (3534.)

Brick

Sand,

RAV

Limesto

**BRICK-CLAYS AND BRICKS, ETC.—Continued.**

- Brick-clay.**—A two-inch parting in coal seam.—Galt mine, Coal Banks, Belly River, district of Alberta, N.W.T.—Coll., T. C. Weston, 1883. (3535.)
- Overlying boulder clay.—Near Fort Kipp, Old Man River, district of Alberta, N.W.T.—Coll., T. C. Weston, 1883. (3536.)
- Dutch Fred's crossing, Waterton River, district of Alberta, N.W.T.—Coll., T. C. Weston, 1883. (3537.)
- Pincher Creek, district of Alberta, N.W.T.—Coll., T. C. Weston, 1883. (3538, 3539, 3540.)
- Park Reserve, New Westminster, B.C.—Henderson and Momahan, 1885. (5191.)
- Vicinity of Nanaimo, Vancouver Island, B.C.—Pressed brick (red), made from. (5131.)
- Victoria, Vancouver Island, B.C. (5188.)  
(1) Brick (red) made from clay No. 5188.—M. Humber, 1885. (5188a.)
- Guichenon Creek, about three miles up from mouth, Nicola, B.C.—employed for pottery.—De Wolf and Monroe, Vancouver, B.C., 1891. (5194.)
- Treadwell, North Plantagenet, Prescott county, O.—Drain-tiles (red), made from. (613.)
- River St. Charles, vicinity of Quebec, Quebec county, Q. (1135.)  
(1) Drain-tiles (red), made from clay No. 1135.—David Bell, Little River, Q. (1135a.)
- Sand,** used in the manufacture of building brick.—Upper Woodstock, Carleton county, N.B. (555.)
- used in the manufacture of building brick.—Montreal, Hochelaga county, Q. (1150.)
- used for sanding brick moulds.—Port Nelson, Hullo county, O.—F. Childs, Hamilton, O., 1885. (4959.)

Upright  
wing-case  
17.—  
Continued.

**RAW LIME AND CEMENT STONES, AND COMMON AND HYDRAULIC LIMES.**

**Raw limestones and prepared limes.**

- Limestone.**—Lot 18, range VII. of Dndswell, Wolfe county, Q.—Silurian, E 3. (5106.)
- (1) Lime prepared from limestone No. 5106.—Dndswell Marble and Lime Company, Marbleton, Q., 1885. (5106a.)
- St. Armand, Missisquoi county, Q.—lime prepared from. (1195.)
- St. John's, St. John's county, Q.—lime prepared from.—D. Breault & Sons, 1885. (2584.)
- Montreal, Hochelaga county, Q.—Cambro-Silurian, D 2. (654.)  
(1) Lime prepared from limestone No. 654.—C. A. Garvais, 1875. (654a.)
- Wright's quarry, Hull, Ottawa county, Q.—Cambro-Silurian, D 2. (5060.)  
(1) Lime prepared from limestone No. 5060.—C. B. Wright, 1885. (5060a.)
- Pugwash, Cumberland county, N.S.—lime prepared from.—D. Douglas, 1875. (1186.)
- Lot 10, range IV. of Ramsay, Lanark county, O.—Laurentian, A. (5128.)

Upright  
wing-case  
18.



**RAW LIME AND CEMENT STONES, ETC.—Continued.****Raw limestones and prepared limes—Continued.**

- Upright  
wing-case  
18.—  
Continued.
- Limestone.**—Lot 10, range IV. of Ramsay, Lanark county, O. (5128.)—*Con.*  
(1) Lime prepared from limestone No. 5128.—A. Sutherland;  
1885. (5128a.)
- Ramsay, Lanark county, O.—Laurentian, A. (5185.)  
(1) Lime prepared from limestone No. 5185.—J. Paul, 1885.  
(5185a.)
- Lot 21, range X. of Lanark, Lanark county, O.—Laurentian, A.  
(5056.)  
(1) Lime prepared from limestone No. 5056.—J. Hogg, Al-  
monte, O., 1885. (5056a.)
- Lot 7, range XIII. of McNab, Renfrew county, O.—Laurentian, A.  
(5054.)  
(1) Lime prepared from limestone No. 5054.—W. Baker, Arn-  
prior, O., 1885. (5054a.)
- East half of lot 13, range III. of Horton, Renfrew county, O.—  
Laurentian, A. (5052.)  
(1) Lime prepared from limestone No. 5052.—J. A. Jamieson,  
Renfrew, O., 1885. (5052a.)
- Lot 21, range IV. of Ross, Renfrew county, O.—Laurentian, A.  
(823.)  
(1) Lime prepared from limestone No. 823.—P. Ferguson,  
Haly's station, O., 1885. (823a.)
- Dundas, Wentworth county, O.—lime prepared from.—E. & C.  
Farquhar, 1875. (1189.)
- St. Mary's, Perth county, O.—lime prepared from.—Whitson &  
Slater, 1875. (1193.)
- (magnesian.)—Guelph, Wellington county, O.—Silurian, F 4. (660.)  
(1) Lime prepared from limestone No. 660.—R. Elmsley,  
1875. (660a.)
- Lot 5, range V. of Eramosa, Wellington county, O.—lime prepared  
from.—George Dunbar, 1875. (1192.)
- (magnesian.)—Walkerton, Bruce county, O.—lime prepared from.  
(773.)
- Fincardine, Bruce county, O.—lime prepared from.—Levi Lewis,  
1875. (1188.)
- Galt, Waterloo county, O.—lime prepared from.—Mrs. Ballantyne,  
1875. (1188.)
- (magnesian.)—Limehouse, Halton county, O.—lime prepared from.—  
Thomas Gowdie, 1875. (1190.)
- Cayuga, Haldimand county, O.—lime prepared from.—Dr. B.  
Baxter, 1875. (1191.)
- Lot 1, range I. of Colborne, Huron county, O.—Devonian, F. (5140.)  
(1) Lime prepared from limestone No. 5140.—Thomas Good,  
Benniller Lime Works, 1885. (5140a.)

**Raw cement stones and prepared cements.**

- Cement-stone, raw.**—Head of Iroquois Portage, Grand Coupe, Gaspé county,  
Q.—Cambro-Silurian, D 3. (662.)
- St. John's ward, Quebec, Quebec county, Q.—cement prepared  
from.—Gauvreau & Co., 1875. (1213.)

R.  
Cement-

G-Y

Gypsum-

**RAW LIME AND CEMENT STONES, ETC.—Continued.**

**Raw cement stones and prepared cements—Continued.**

- Cement-stone, raw**—Lot. 22, range III. of Grantham, Drummond county, Q. (1215.)  
 (1) Cement prepared from raw cement-stone No. 1215. (1215a.)  
 — Arthabaska, Arthabaska county, Q.—cement prepared from.—Sheriff Quesnel, 1875. (2585.)  
 — Nepean, Carleton county, O.—Cambro-Silurian, D 1. (670.)  
 (1) Cement prepared from raw cement-stone No. 670.—C. B. Wright, Hull, Q., 1885. (670a.)  
 — Gale's farm, Hochelaga, Hochelaga county, Q.—Cambro-Silurian, D. (1216.)  
 — Lot 6, range XI. of Pakenham, Lanark county, O.—Cambro-Silurian, D 1. (671.)  
 — Two miles below Kingston, Frontenac county, O.—Cambro-Silurian, D 1. (668.)  
 — Limehouse, Halton county, O.—Silurian, E 2. (658.)  
 (1) Cement prepared from raw cement-stone No. 658.—Thomas Gowdie, 1875. (658a.)  
 — Goderich (Maitland River bridge), Huron county, O.—Devonian, F 1. (669.)  
 — Thorold, Welland county, O.—Silurian, E 3. (1218.)

Upright  
wing-case  
18.—  
Continued.

**GYP SUM, ANHYDRITE AND PLASTER-OF-PARIS.**

**Gypsum.**

- Gypsum**—Bras d'Or Lake, four miles east of Bahlbeck, Victoria county, N.S.—Coll. H. Fletcher, 1875.—Carboniferous, G 1. (627.)  
 — "East" quarry, Grandique, Richmond county, N.S.—Coll. H. How, 1871.—Carboniferous, G 1. (628.)  
 — "West" quarry, Grandique, Richmond county, N.S.—Coll. H. How, 1871.—Carboniferous, G 1. (634.)  
 — "Centre" quarry, Grandique, Richmond county, N.S.—Coll. H. How, 1871.—Carboniferous, G 1. (656.)  
 — North Shore, St. Ann's Bay, Cape Breton county, N.S.—Coll. H. Fletcher, 1875.—Carboniferous, G 1. (1201.)  
 — "Clifton" quarry, near Windsor, Hants county, N.S.—Coll. H. How, 1871.—Carboniferous, G 1. (618.)  
 — Two miles east of Windsor, Hants county, N.S.—Coll. H. How, 1871.—Carboniferous, G 1. (624.)  
 — Sweet's quarry, about five miles east of Windsor, Hants county, N.S.—Coll. H. How, 1871.—Carboniferous, G 1. (626.)  
 — Latchey's quarry, near Windsor, Hants county, N.S.—Coll. H. How, 1871.—Carboniferous, G 1. (632.)  
 — var. selenite.—Windsor, Hants county, N.S.—Coll. H. How, 1871.—Carboniferous, G 1. (633.)  
 — (fibrous).—Windsor, Hants county, N.S.—Coll. H. How, 1871.—Carboniferous, G 1. (642.)  
 — Wilkins' quarry, near Windsor, Hants county, N.S.—Coll. H. How, 1871.—Carboniferous, G 1. (651.)  
 — Windsor, Hants county, N.S.—(calcined = Plaster-of-Paris). (694.)  
 — Hanson's quarry, Palmonth, Hants county, N.S.—Coll. H. How, 1871.—Carboniferous, G 1. (620.)

Upright  
wing-case  
19.

GYPSUM, ANHYDRITE AND PLASTER-OF-PARIS—*Continued.**Gypsum—Continued.*

- Upright  
wing-case  
19.—  
*Continued.*
- Gypsum**—Payzant's quarry, Falmouth, Hants county, N.S.—Coll., H. How, 1871.—Carboniferous, G I. (621.)
- Young's quarry, Falmouth, Hants county, N.S.—Coll., H. How, 1871.—Carboniferous, G I. (625.)
- Three-mile Plains, Hants county, N.S.—Coll., H. How, 1871.—Carboniferous, G I. (629.)
- var. selenite.—Wentworth, Hants county, N.S.—Coll., H. How, 1871.—Carboniferous, G I. (640.)
- Wentworth, Hants county, N.S.—Coll., H. Y. Hind, 1875.—Carboniferous, G I. (707.)
- "Blue" quarries, Wentworth, Hants county, N.S.—Coll., H. Y. Hind, 1875.—Carboniferous, G I. (737.)
- Chambers' quarry, about one mile south-west of Brooklyn, Hants county, N.S.—Coll., H. How, 1871.—Carboniferous G I. (623.)
- Grant's quarry, Loyal Hill, Summerville, Hants county, N.S.—Coll., H. How, 1871.—Carboniferous, G I. (645.)
- Burgess' quarry, about a mile and a half east of Newport station, Hants county, N.S.—Coll., H. How, 1871.—Carboniferous, G I. (646.)
- (fibrous).—Maitland, Hants county, N.S.—Coll., H. How, 1871.—Carboniferous, G I. (650.)
- Walton, Hants county, N.S.—Coll., H. How, 1871.—Carboniferous, G I. (775.)
- Beaver Brook, Colchester county, N.S.—(calcined = Plaster-of-Paris). (709.)
- var. selenite.—Cape Blomidon, King's county, N.S.—Coll., C. W. Willimott, 1883.—Triassic, H. (639.)
- (fibrous).—Blomidon, King's county, N.S.—Coll., R. W. Ells, 1876.—Triassic, H. (772.)
- Oxford, River Philip, Cumberland county, N.S.—Presented by A. J. Hill, 1875.—Carboniferous, G I. (776.)
- Black River, a mile and a half east of Salt Springs station, Intercolonial Railway, Cumberland county, N.S.—Coll., S. Barlow, 1875.—Carboniferous, G I. (777.)
- Clarendon Hill, a mile and a half south of Salt Springs station, Intercolonial Railway, Cumberland county, N.S.—Coll., S. Barlow, 1875.—Carboniferous, G I. (706.)
- Fulton's quarry, Plaster Cove, Wallace Harbour, Cumberland county, N.S.—Coll., W. McOuat, 1875.—Carboniferous, G I. (779.)
- Plaster Cliff, Tobique River, Victoria county, N.B.—Coll., C. Robb, 1870.—Carboniferous, G I. (641.)
- (fibrous).—Plaster Cliff, Tobique River, Victoria county, N.B.—Coll., C. Robb, 1870.—Carboniferous, G I. (643.)
- Petitcodiac, Westmoreland county, N.B.—Coll., L. W. Bailey, 1875.—Carboniferous, G I. (659.)
- Hillsborough, Albert county, N.B.—Coll., L. W. Bailey, 1875.—Carboniferous, G I. (1199.)
- Amherst Island, Magdalen Islands, Q.—Coll., J. Richardson, 1880.—Carboniferous, G I. (745.)
- (fibrous).—Grindstone Island, Magdalen Islands, Q.—Coll., J. Richardson, 1880.—Carboniferous, G I. (760.)
- Alright Island, Magdalen Islands, Q.—Coll., J. Richardson, 1880.—Carboniferous, G I. (761.)

GYPS

Gypsum

Anhydri

Iron

Iron ochr

94

PARIS—Continued.

N.S.—Coll., H. How,  
N.S.—Coll., H. How,  
H. How, 1871.—Car.  
N.S.—Coll., H. How,  
T. Hind, 1875.—Car.  
y, N.S.—Coll., H. Y.  
)  
t of Brooklyn, Hants  
—Carboniferous G l.  
county, N.S.—Coll.  
(45.)  
of Newport station,  
1871.—Carboniferous,  
oll., H. How, 1871. —  
1871.—Carboniferous,  
calced = Plaster-of-

GYPSUM, ANHYDRITE AND PLASTER-OF-PARIS—Continued.

Gypsum—Continued.

- Gypsum—Oneida, Haldimand county, O.—Coll., T. C. Weston, 1875.—Silurian, E 5. (649.)
- Grand River, below Cayuga, Haldimand county, O.—Presented by W. H. Merritt, 1883.—Silurian, E 5. (653.)
- Mount Healy, Haldimand county, O.—Silurian, E 5. (720.)  
(1) Gypsum, calcined = Plaster-of-Paris, prepared from gypsum, No. 720.—The Ontario Plaster Company, Mount Healy, O. (720a.)
- with associated dolomite.—Mount Healy, Haldimand county, O.—Coll., T. C. Weston, 1875.—Silurian, E 5. (728.)
- (fibrous).—Paris, Brant county, O.—Silurian, E 5. (652.)  
(1) Gypsum, calcined = Plaster-of-Paris, prepared from gypsum No. 652.—William Coleman, Paris, O. (652a.)
- Moose River, thirty-eight miles above Moose Factory, district of Algoma, O.—Coll., R. Bell, 1875.—Devonian, F. (780.)
- Lake St. Martin, about ten miles west of the outlet of Little Saskatchewan River, Manitoba.—Presented by Thomas Guerin, 1882. (647.)
- Peace Point, Peace River, N.W.T.—Presented by J. H. Moberley.—Devonian, F. (5325.)
- Salmon River, between the Salmon River and head of Okanagan Lake, B.C. (693.)
- Vicinity of Spence's Bridge, Thompson River, B.C. (4771.)

Upright  
wing-case  
19.—  
Continued.

Anhydrite.

- Anhydrite.—Clifton quarry, near Windsor, Hants county, N.S.—Coll., H. How, 1871.—Carboniferous, G l. (617.)
- Quarry two miles from Windsor, Hants county, N.S.—Coll., H. How, 1871.—Carboniferous, G l. (648.)
- Hillsborough, Albert county, N.B.—Coll., L. W. Bailey, 1875.—Carboniferous, G l. (1200.)

V.—MINERALS EMPLOYED AS PIGMENTS.

Iron ochres and other ferruginous minerals, and pigments prepared therefrom.

- Iron ochre.—Dark brownish-yellow.—Padsey's Point, Apple River, Cumberland county, N.S.—Post-Tertiary, M 3. (2440.)
- Purplish-brown.—North-west branch of the Miramichi River, about fourteen miles from Redbank, Northumberland county, N.B.—Presented by J. Ferguson, 1890. (4691.)
- Brownish-yellow.—Carleton, Bonaventure county, Q.—Post-Tertiary, M 3. (726.)
- Brownish-yellow.—Côte St. Charles, Vaudreuil, Vaudreuil county, Q.—Post-Tertiary, M 3. (724.)
- Yellowish-brown.—Cap de la Magdeleine, Champlain county, Q.—Post-Tertiary, M 3. (729.)
- Brownish-red.—Cap de la Magdeleine, Champlain county, Q.—Post-Tertiary, M 3. (730.)

Upright  
wing-case  
20.

**Iron ochres and other ferruginous minerals, etc.—Continued.**

- Upright  
wing-case  
20.—  
*Continued.*
- Iron ochre**—Brownish-yellow.—Cap de la Magdeleine, Champlain county, Q.—Post-Tertiary, M 3. (739.)
- Reddish-brown.—Lot 13, range IX. of Stanstead, Stanstead county, Q.—Post-Tertiary, M 3. (731.)
- Brownish-yellow.—Ste. Elizabeth, Joliette county, Q.—Post-Tertiary, M 3. (732.)
- Brownish-yellow.—Ste. Rose (Rosalie), seigniory of Lanoraie, Joliette county, Q.—Post-Tertiary, M 3. (734.)
- Brown, vandyke.—Ste. Anne de Montmorenci, Montmorency county, Q.—Post-Tertiary, M 3. (735.)
- Reddish-brown.—Ste. Anne de Montmorenci, Montmorency county, Q.—Post-Tertiary, M 3. (736.)
- Reddish-brownish-yellow.—Ste. Anne de Montmorenci, Montmorency county, Q.—Post-Tertiary, M 3. (740.)
- Dark brownish-yellow.—Ste. Anne de Montmorenci, Montmorency county, Q.—Post-Tertiary, M 3. (741.)
- Brownish-yellow.—Ste. Anne de Montmorenci, Montmorency county, Q.—Post-Tertiary, M 3. (742.)
- Brownish-yellow.—Ste. Marguerite, St. Maurice county, Q.—Post-Tertiary, M 3. (738.)
- Purplish-reddish-brown.—Pointe du Lac, St. Maurice county, Q.—Post-Tertiary, M 3. (743.)
- Yellowish brown.—Pointe du Lac, St. Maurice county, Q.—Post-Tertiary, M 3. (2445.)
- Dark yellowish-brown.—Pointe du Lac, St. Maurice county, Q.—Post-Tertiary, M 3. (2446.)
- Purplish-brown.—Lot 15, range X. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1885.—Post-Tertiary, M 3. (5183.)
- Brownish-yellow.—Lot 30, range II. of Leslie, Pontiac county, Q.—Presented by R. H. G. Chapman, 1885. (5123.)
- Brownish-yellow.—Lot 2, range XI. of Nottawasaga, Simcoe county, O.—Post-Tertiary, M 3. (733.)
- Brownish-yellow.—Conestogo, Waterloo county, O.—Post-Tertiary, M 3. (2460.)
- Pigments prepared from iron ochre No. 2460 by James Newton, Linehouse, Halton county, O.—
- (1) Brownish-yellow. (2460a.)
- (2) Clove-brown. (2460b.)
- (3) Burnt amber. (2460c.)
- Brownish-yellow.—Lot 12, range XIV. of Walsingham, Norfolk county, O.—Post-Tertiary, M 3. (2467.)
- Pigments prepared from iron ochre No. 2467 by the Buchanan Mineral Company, Hamilton, O.—
- (1) Brownish-yellow, designated "metallic." (2467a.)
- (2) do (2467b.)
- (3) Brownish-red, designated "metallic" (2467c.)
- (4) Deep brownish-red do (2467d.)
- (5) do do (2467e.)
- (6) Brownish-grey. (2467f.)
- (7) Brownish-yellow. (2467g.)
- (8) Reddish-brown. (2467h.)
- Brownish-yellow.—Silver Creek, Harrison Lake, about twenty miles north of Harrison Hot Springs, B.C.—Presented by John P. Brown, 1890. (708.)

Iron  
Iron ochre

Bog iron c

Ferruginous

Clay.—Lim

Hematite.

Ferruginous

Ferruginous

Barytes (bar

ete.—Continued.

unplain county, Q.

nd, Stanstead county.

ounty, Q.—Post-Ter.

y of Lauraire, Joliette

enci, Montmorency,

Montmorency county.

tmorency, Montmor.

(740.)

enci, Montmorency

enci, Montmorency

e county, Q.—Post-

aurice county, Q. —

e county, Q.—Post-

aurice county, Q.

ttawa county, Q.

ury, M 3. (5183.)

Pontiac county, Q.

(5123.)

ttawasaga, Simcoe

O.—Post-Tertiary,

y James Newton,

alsingham, Norfolk

by the Buchanan

(2467a.)

(2467c.)

(2467d.)

ke, about twenty

C.—Presented by

**Iron ochres and other ferruginous minerals, etc.**—Continued.**Iron ochre**—Brownish-red.—Silver Creek, Harrison Lake, about twenty miles north of Harrison Hot Springs, B.C.—Presented by John P. Brown, 1890. (710.)Upright  
wing-case  
20.—  
Continued.

— Deep brownish-red.—Silver Creek, Harrison Lake, about twenty miles north of Harrison Hot Springs, B.C.—Presented by John P. Brown, 1890. (795.)

**Bog iron ore**—Mallorytown, Leeds county, O. (2466.)

(1) Pigment (yellowish-brown), prepared from bog iron ore No. 2466 by the Leeds Paint Manufacturing Company, Mallorytown, O. (2466a.)

— Mallorytown, Leeds county, O.—Post Tertiary, M 3. (2463.)

Pigments prepared from bog iron ore No. 2463 by the Leeds Paint Manufacturing Company, Mallorytown, O. —

(1) Brownish-yellow. (2463a.)

(2) Purplish-reddish-brown. (2463b.)

**Ferruginous rock**—Mallorytown, Leeds county, O. (2464.)

(1) Pigment (brownish-red), prepared from ferruginous rock No. 2464 by the Leeds Paint Manufacturing Company, Mallorytown, O. (2464a.)

— Mallorytown, Leeds county, O. (2465.)

(1) Pigment (brownish-red, a different shade from 2464a), prepared from ferruginous rock No. 2465 by the Leeds Paint Manufacturing Company, Mallorytown, O. (2465a.)

— Sackville, Westmoreland county, N.B. (2452.)

(1) Pigment (brownish-red), prepared from ferruginous rock No. 2452 by George Barnes. (2452a.)

**Clay**—Limehouse, Halton county, O. (2455.)

(1) Pigment (bluish-grey) prepared from clay No. 2455 by James Newton, Limehouse, O. (2455a.)

— Limehouse, Halton county, O. (2456.)

(1) Pigment (brownish-grey) prepared from clay No. 2456 by James Newton, Limehouse, O. (2456a.)

**Hematite**—Limehouse, Halton county, O.—Silurian, E 2. (2457.)

(1) Pigment (purplish-brown), prepared from hematite No. 2457 by James Newton, Limehouse, O. (2457a.)

**Ferruginous dolomite**—Limehouse, Halton county, O.—Silurian, E 2. (2458.)

(1) Pigment (reddish-brown), prepared from ferruginous dolomite No. 2458 by James Newton, Limehouse, O. (2458a.)

**Ferruginous clay**—Limehouse, Halton county, O. (2459.)

(1) Pigment (reddish-brown), prepared from ferruginous clay No. 2459 by James Newton, Limehouse, O. (2459a.)

— Yellow.—Punk Island, Lake Winnipeg, Manitoba. (2475.)

**Barite or Barytes.****Barytes** (barite).—Judique, Inverness county, N.S.—Presented by H. S. Poole, 1875.—Carboniferous, G 1. (2479.)

— Bass River, Five Islands, Colchester county, N.S.—Coll., S. Barlow, 1875.—Carboniferous, G 1. (2468.)

— Memramook, Westmoreland county, N.B.—Carboniferous, G 1. (2453.)

— Anse à la Vieille, Port Daniel, Bonaventure county, Q.—Coll., T. C. Weston, 1875.—Silurian, E 3. (749.)

**Barite or Barytes—Continued.**

- Upright wing-case 20.—  
Continued.
- Barytes** (barite)—West half of lot 7, range X. of Hull, Ottawa county, Q.—Coll., J. Richardson.—Laurentian, A. (2476.)
- (1) Ground barytes (No. 2476) employed, in admixture, as a pigment. (2476a.)
- Lot 4, range IX. of North Burgess, Lanark county, O.—Laurentian, A. (750.)
- (1) Ground barytes (No. 750) employed, in admixture, as a pigment. (750a.)
- Lot 22, range I. of Lavant, Lanark county, O.—Laurentian, A. (994.)
- Lynch's farm, range IV. of Ramsay, Lanark county, O.—Presented by W. H. Wylie, 1885.—Laurentian, A. (2449.)
- Lot 3, range XI. of Pakenham, Lanark county, O.—Presented by W. H. Wylie, 1885.—Laurentian, A. (746.)
- Lot 15, range VI. of Madoc, Hastings county, O.—Laurentian, A. (751.)
- Galway, Peterborough county, O.—Laurentian, A. (748.)
- From the second cutting west of McKay's Harbour (Rossport) station, C.P.R., district of Thunder Bay, O. Coll., A. B. C. Selwyn, 1885.—Cambrian, C. (5387.)

**Steatite.**

**Steatite** (var. of talc).—Potton, Bromo county, Q.—Cambrian, C. (747.)

The following have, temporarily, also been accommodated in this case:—

- Celestite.**—Lot 1, range VIII. of Lansdowne, Leeds county, O.—Laurentian, A. (752.)
- Lot 7, range X. of Bagot, Renfrew county, O.—Presented by Hiram Robinson, Ottawa, O., 1885. (5121.)
- Sydney River (about a mile and a half above Sydney Bridge), Cape Breton county, N.S.—Presented by E. T. Mozeley, 1883. (928.)
- Magnesite.**—Lot 12, range VII. of Sutton, Bromo county, Q.—Pre-Cambrian, B? (701.)
- Lot 17, range IX. of Bolton, Bromo county, Q.—Pre-Cambrian, B? (702.)
- (1) Magnesite, calcined, prepared from magnesite No. 702. (702a.)
- (2) Magnesium sulphate (Epsom salts) do (702b.)
- (3) Magnesium carbonate (magnesia alba) do (702c.)

**VI.—REFRACTORY (FIRE-RESISTING) MINERALS.****GRAPHITE.****Graphite, and articles manufactured therefrom.**

- Upright wing-case 21.
- Graphite**, (disseminated.)—Best's mine, St. John, St. John county, N.B.—Coll., H. P. Brunell, 1891.—Laurentian, A. (896.)
- (vein.)—North half of lot 3, range II. of the Augmentation of Grenville, Argenteuil county, Q.—Laurentian, A. (789.)

GRAPHITE—Continued.

Graphite, and articles manufactured therefrom—Continued.

- Ottawa county, Q.—(2476.)  
 l, in admixture, as a  
 nty, O.—Laurentian,  
 in admixture, as a  
 O.—Laurentian, A.  
 unty, Q.—Presented  
 (2449.)  
 y, O.—Presented by  
 (746.)  
 O.—Laurentian, A.  
 A. (748.)  
 Harbour (Rossport)  
 y, O. Coll., A. R.  
 an, C. (747.)  
 mmodated in this  
 O.—Laurentian, A.  
 O.—Presented by  
 21.)  
 dney Bridge), Cape  
 T. Mozeley, 1883.  
 —Pre-Cambrian, B?  
 —Pre-Cambrian, B?  
 site No. 702. (702a.)  
 do (702b.)  
 do (702c.)
- MINERALS.**
- efrom.  
 unty, N.B.—Coll.,  
 (96.)  
 mentation of Gren-  
 A. (789.)
- Graphite, (vein.)—Lot 3, range VI. of the Augmentation of Grenville, Argenteuil county, Q.—Laurentian, A. (799.)  
 — (vein.)—Lot 1, range VI. of the Augmentation of Grenville, Argenteuil county, Q.—Laurentian, A. (801.)  
 — (vein.)—Miller's mine, lot 10, range V. of Grenville, Argenteuil county, Q.—Coll., R. Bell, 1875.—Laurentian, A. (790.)  
 — (vein.)—Lot 2, range X. of Grenville, Argenteuil county, Q.—Laurentian, A. (802.)  
 — (disseminated.)—Lochaber, Ottawa county, Q.—Laurentian, A. (793.)  
 (1) Dressed graphite, prepared from graphite No. 793. (793a.)  
 — (disseminated.)—Lots 15 and 16, range VI. of Buckingham, Ottawa county, Q.—Laurentian, A. (3689.)  
 — (vein.)—Lot 23, range VI. of Buckingham, Ottawa county, Q.—Laurentian, A. (2553.)  
 — (vein.)—Lot 27, range VI. of Buckingham, Ottawa county, Q.—Laurentian, A. (2486.)  
 — (vein.)—Buckingham, Ottawa county, Q.—Laurentian, A. (791.)  
 — (disseminated.)—Lot 28, range VI. of Buckingham, Ottawa county, Q.—Presented by W. H. Dickson, Ottawa, O., 1889.—Laurentian, A. (796.)  
 — (vein.)—Lot 21, range VII. of Buckingham, Ottawa county, Q.—Laurentian, A. (2551.)  
 (1) Plumbago crucible, manufactured from graphite No. 2551. (2551a.)  
 (2) Black-lead pencils, manufactured from graphite No. 2551. (2551b.)  
 (3) Stove polish—pressed squares, manufactured from graphite No. 2551. (2551c.)  
 (4) Stove polish, dome-lead, manufactured from graphite No. 2551. (2551d.)  
 — (disseminated.)—Lot 27, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor.—Laurentian, A. (4624.)  
 — (disseminated.)—Lot 20, range VIII. of Buckingham, Ottawa county, Q.—Laurentian, A. (2483.)  
 (1) Dressed graphite, prepared from graphite No. 2483. (2483a.)  
 (2) do do do do (2483b.)  
 — (vein.)—Lot 10, range I. of South Burgess, Leeds county, O.—Laurentian, A. (798.)  
 (1) Dressed graphite, prepared from graphite No. 798. (798a.)  
 — (vein.)—Darling, Lanark county, O.—Laurentian, A. (803.)  
 — (disseminated.)—Lot 21, range VI. of North Elmsley, Lanark county, O.—Laurentian, A. (5469.)  
 (1) Dressed graphite, prepared from graphite No. 5469. (5469a.)  
 — (disseminated.)—Lot 34, range VIII. of Denbigh, Addington county, O.—Laurentian, A. (2462.)  
 — (disseminated.)—Alkow Harbour, Dean Canal, B.C.—Presented by the Marquis of Lorne, 1883. (622.)
- Friction bearing, made of Fibre-graphite (wood pulp and graphite).—Presented by J. Fraser Torrance, M.E., 1892. (2568.)

Upright  
wing-case  
21.—  
Continued.



SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
GRAPHITE.

- Upright  
table-case  
29.—  
*Continued.*
- Graphite**, (disseminated.)—Best's mine, St. John, St. John county, N.B.—Coll., H. P. Brunell, 1891.—Laurentian, A. (2094.)
- (disseminated.)—Split-Rock plumbago mine, St. John county, N.B.—Coll., W. Broad, 1878.—Laurentian, A. (3681.)
- (disseminated.)—From an opening three-quarters of a mile north of the Split-Rock plumbago mine, St. John county, N.B.—Coll., W. Broad, 1878.—Laurentian, A. (3682.)
- (disseminated.)—Lot 9, range V. of Grenville, Argenteuil county, Q.—Presented by F. C. Weldon, 1886.—Laurentian, A. (5286.)
- (vein.)—Lot 27, range V. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1935.)
- (vein.)—Lot 28, range V. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (2108.)
- (vein.)—Lot 27, range VI. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (3688.)
- with pyrite.—Lot 28, range VI. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1777.)
- (vein.)—Lot 21, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (3684.)
- (disseminated.)—Lot —, range IX. of Wakefield, Ottawa county, Q.—Presented by E. Trowse, 1886.—Laurentian, A. (5331.)
- (disseminated.)—Lot 21, range VI. of North Emsley, Lanark county, O.—Laurentian, A. (2113.)
- (disseminated.)—Lot 34, range VIII. of Denbigh, Addington county, O.—Laurentian, A. (2141.)
- (disseminated.)—Skuzzy Creek, near North Bend, west side of the Fraser River, B.C.—Presented by J. W. Mackay, 1890. (5998.)
- Table-case  
37.
- (vein.)—North half of lot 3, range II. of the Augmentation of Grenville, Argenteuil county, Q.—Coll., C. Robb, 1875.—Laurentian, A. (1778.)
- (vein.)—Lot 1, range VI. of the Augmentation of Grenville, Argenteuil county, Q.—Laurentian, A. (1779.)
- (vein.)—Lot 4, range VI. of Grenville, Argenteuil county, Q.—Laurentian, A. (1781.)
- (vein.)—Miller's mine, lot 10, range V. of Grenville, Argenteuil county, Q.—Laurentian, A. (1782.)
- (disseminated.)—Lot 9, range IV. of Grenville, Argenteuil county, Q.—Laurentian, A. (1913.)
- Beresford, Terrebonne county, Q.—Laurentian, A. (3512.)
- (disseminated.)—Lot 20, range VIII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1767.)
- (disseminated.)—Lots 15 and 16, range VI. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1768.)
- (disseminated.)—Lot 20, range VIII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1770.)
- (vein.)—Lot 5, range IX. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1873.—Laurentian, A. (1772.)
- (disseminated.)—Lot 27, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1776.)
- (vein.)—Lot 23, range VI. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1783.)

SE

Graphit

Graphit

Limesto

Graphit

Pyroxen

Graphit

Pyroxen

Graphit

Limesto

Orthocla

SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
GRAPHITE—*Continued.*

- Graphite**, (disseminated).—Lot 27, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian A. (1784.)
- (disseminated).—Lot 28, range VI. of Buckingham, Ottawa county, Q.—Presented by W. H. Dickson, Ottawa, 1889.—Laurentian, A. (3687.)
- Lochaber, Ottawa county, Q.—Laurentian, A. (1774.)
- Darling, Lanark county, O.—do (1775.)
- Moore's clearing, lot 21, North Front A, Westmeath, Renfrew county, O.—Coll., W. E. Logan, 1845.—Laurentian, A. (3607.)
- (vein).—Lot 10, range I. of South Burgess, Leeds county, O.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3686.)
- (disseminated).—Lot 6, range IX. of Loughborough, Frontenac county, O.—Coll., H. G. Vennor.—Laurentian, A. (1771.)
- (disseminated).—Fraser River, B.C.—Presented by A. Cowan, 1884. (4941.)
- (disseminated).—Alkow Harbour, Dean Canal, B.C.—Presented by the Marquis of Lorne, 1884. (3690.)

Table-case  
37.—  
*Continued.*

## MINERAL ASSOCIATIONS OF GRAPHITE.

- Graphite**, calcite, titanite and zircon.—Miller's mine, lot 10, range V. of Grenville, Argenteuil county, Q.—Laurentian, A. (1250.)
- wollastonite, pyroxene and titanite.—Miller's mine, lot 10, range V. of Grenville, Argenteuil county, Q.—Coll., C. W. Willimott, 1878.—Laurentian, A. (1740.)
- calcite, pyroxene and titanite.—Miller's mine, lot 10, range V. of Grenville, Argenteuil county, Q.—Coll., C. W. Willimott, 1878.—Laurentian, A. (1741, 1742.)
- Limestone** with graphite and pyroxene.—South half of lot 17, range II. of Grenville, Argenteuil county, Q.—Laurentian, A. (1762.)
- Graphite**, calcite, pyroxene and apatite.—North half of lot 21, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1743.)
- Pyroxene** with graphite.—North half of lot 21, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1744.)
- Graphite**, orthoclase and titanite.—Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1746.)
- orthoclase and hornblende.—North half of lot 21, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1748.)
- calcite and mica.—Lot 21, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1749.)
- and orthoclase.—Lot 27, range V. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1752.)
- Pyroxene**, graphite and mica.—Lot 24, range V. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1753.)
- Graphite** and orthoclase.—Lot 25, range IV. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1754.)
- Limestone** with pyroxene.—Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1755.)
- Orthoclase**.—Lot 22, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1757.)

## MINERAL ASSOCIATIONS OF GRAPHITE—Continued.

- Table-case 37. **Pyroxene.**—Lot 17, range XII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1759.)
- Continued. **Limestone** with mica.—Lot 21, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1760.)
- Orthoclase** and hornblende.—Lot 21, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1229.)
- quartz and hornblende.—Lot 22, range VII. of Buckingham, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1766.)
- Gneiss.**—Little Rapids, Portland, Ottawa county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (1764.)
- Magnetite**, graphite and calcite.—Baldwin mine, lot 13, range VI. of Hull, Ottawa county, Q.—Coll., T. C. Weston, 1875.—Laurentian, A. (1751.)
- Hematite** and graphite.—Baldwin mine, lot 13, range VI. of Hull, Ottawa county, Q.—Coll., T. C. Weston, 1875.—Laurentian, A. (1756.)
- Magnetite** and graphite.—Baldwin mine, lot 13, range VI. of Hull, Ottawa county, Q.—Coll., T. C. Weston, 1875.—Laurentian, A. (1765.)
- Tremolite** with graphite.—Tudor, Hastings county, O. (1745.)
- Limestone** with chondrodite and graphite.—South Crosby, Leeds county, O.—Coll., H. G. Vennor.—Laurentian, A. (1747.)

## ASBESTUS, SOAPSTONE, POTSTONE, ETC.

## Chrysotile, so-called (commercially) asbestos.

- Upright wing-case 22. **Asbestos** (fibrous serpentine, chrysotile).—Big Island, Lake Niolet, South Ham, Wolfe county, Q.—Coll., C. W. Willimott, 1882.—Cambrian, C 1. (3672.)
- South half of lots 27 and 28, range B. of Coleraine, Megantic county, Q.—Cambrian, C 1. (804.)
- (1) Asbestos mill-board, steam packing, etc., manufactured from asbestos No. 804.—Presented by Ed. Wertheim, 1889. (804a.)
- Scottish Canadian Company's mine, Black Lake, Coleraine, Megantic county, Q.—Coll., E. Coste, 1884.—Cambrian, C 1. (4969.)
- Boston Asbestos Packing Company's mine, lot 27, range V. of Thetford, Megantic county, Q.—Coll., C. W. Willimott, 1882.—Cambrian, C 1. (5341.)
- Johnson's mine, lot 27, range VI. of Thetford, Megantic county, Q.—Coll., C. W. Willimott, 1882.—Cambrian, C 1. (5342.)
- (1) Asbestos, dressed. (5342a.)
- Melbourne quarry, lot 22, range VI. of Melbourne, Richmond county, Q.—Coll., H. Y. L. Brown, 1875.—Cambrian, C 1. (2485.)
- Lot 11, range VIII. of Templeton, Ottawa county, Q.—Coll., Scott Barlow, 1890.—Laurentian, A. (5395.)
- Lot 32, range XI. of Sebastopol, Renfrew county, O.—Presented by A. Parks, 1878.—Laurentian, A. (5556.)
- Lot 7, range XI. of Elzevir, Hastings county, O.—Presented by Joseph James, 1890.—Archean, A. B. (5936.)
- (1) Ground asbestos, used in the manufacture of roofing cement. (5936a.)

—Continued.

ty, Q.—Coll., H.

Ottawa county, Q.  
A. (1760.)Ottawa county,  
A. (1229.)Kingham, Ottawa  
—Laurentian, A.

Vernor, 1870.

ge VI. of Hull,  
75.—Laurentian,of Hull, Ottawa  
—Laurentian, A.of Hull, Ottawa  
—Laurentian, A.ds county, O.—  
(.)

ETC.

s.

Nicolet, South  
William, 1882.—

mine, Megantic

, manufactured  
Ed. Wertheim,ke, Coleraine,  
—Cambrian, C 1., range V. of  
W. Willimott,ntic county, Q.  
l. (5342.)ne, Richmond  
Cambrian, C 1.

.—Coll., Scott

—Presented by

—Presented by

roofing cement.

**ASBESTUS, SOAPSTONE, POTSTONE, ETC.—Continued.**

Specimens illustrating the distribution of chrysotile are shown in table-case 38, and articles manufactured therefrom in upright table-case 30.

**Soapstone or Steatite, compact tale.****Soapstone** (steatite, compact tale).—Lot 7, range IV. of Elzevir, Hastings county, O.—Used in the manufacture of roofing cement. (5937.)Upright  
wing-case  
22.—  
Continued.

- (1) Roofing cement, manufactured from ground asbestos (5936a) and soapstone (5937) by Joseph James, Bridgewater, O. (5937a.)
- Copper mine, Eagle Head, Gabarus Bay, Cape Breton county, N.S.—Coll., H. Fletcher, 1875. (4627.)
- Lot 10, range V. of Potton, Brome county, Q.—Cambrian, C 1. (800.)
- Lot 24, range VI. of Potton, Brome county, Q.—Cambrian, C 1. (812.)
- Lot 12, range VII. of Sutton, Brome county, Q.—Pre-Cambrian, B? (813.)
- Lot 24, range IV. of Bolton, Brome county, Q.—Pre-Cambrian, B? (2566.)
- Lot 8, range I. of Garthby, Wolfe county, Q.—Coll., C. W. Willimott, 1880.—Cambrian, C 1. (3599.)

**Bucket** made of soapstone. (817.)**Potstone or compact chlorite.****Potstone** (compact chlorite).—Lot 4, range — of Broughton, Beauce county, Q.—Pre-Cambrian, B? (811.)

- Lot 26, range II. of Bolton, Brome county, Q.—Pre-Cambrian, B? (815.)

**Dish** made of potstone. (816.)**Fire clay and other refractory minerals.****Altered felsite**, suitable for the manufacture of fire-brick.—Watson Brook, Coxheath Hills, Cape Breton county, N.S.—Coll., H. Fletcher, 1875.—Laurentian, A. (2561.)**Fire-clay**.—Grand Lake (Little River), Queen's county, N.B.—Presented by G. N. McMan, 1875.—Carboniferous, G. (1132.)

- Dundas, Wentworth county, O.—Coll., R. Bell, 1862.—Silurian, F 2. (819.)
- Souris City, Souris River, Manitoba.—Coll., A. R. C. Selwyn, 1880. (4854.)

**Quartz tailings**.—Bruce Mines, Lake Huron, O.—Coll., T. C. Weston, 1882.—Huronian, B. (2562.)

(1) Clay used in the manufacture of fire-brick. (2562a.)

(2) Fire-brick made from quartz tailings (2562) in admixture with clay (2562a). (2562b.)

**Refractory sandstone**.—Lot 20, range I. of Pittsburgh, Frontenac county, O.—Presented by A. Cowan, Kingston, O., 1862.—Cambrian, C 1. (818.)**Kaolin**.—Wentworth, Hants county, N.S.—Presented by S. H. Sweet, 1875.—Carboniferous, G 1. (1147.)

The following has temporarily been accommodated in this case :

**Orthoclase** (microcline?).—Villeneuve mica mine, lot 31, range I. of Villeneuve, Ottawa county, Q.—Presented by L. H. Shirley, 1886.—Laurentian A. (5276.)

**SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
CHRYCOTILE OR SO-CALLED (COM-  
MERCIALLY) ASBESTUS.**

Table-case 38.	<b>Asbestos</b>	fibrous serpentine, chrysotile. — Pisarinea Cove, Lancaster, St. John county, N. B. — Coll., L. W. Bailey, 1870. — Pre-Cambrian, A. B. (1568.)
		Big Island, Lake Nicolet, South Han. Wolfe county, Q. — Coll., C. W. Willimott, 1882. — Cambrian, C. (3629-3633.)
	--	Melbourne quarry, lot 22, range VI. of Melbourne, Richmond county, Q. — Coll., H. Y. L. Brown, 1875. — Cambrian, C. I. (3643.)
		Shtpton, Richmond county, Q. — Coll., J. Richardson, 1817. — Cambrian, C. (3644.)
		Johnson's mine, lot 27, range VI. of Thetford, Megantic county, Q. — Coll., C. W. Willimott, 1882. — Cambrian, C. (3634.)
		dressed — Johnson's mine, lot 27, range VI. of Thetford, Megantic county, Q. — Coll., C. W. Willimott, 1882. — Cambrian, C. (3635.)
		with magnetite. — Johnson's mine, lot 27, range VI. of Thetford, Megantic county, Q. — Coll., C. W. Willimott, 1882. — Cambrian, C. (3598.)
		Boston Asbestos Packing Company's mine, lot 27, range V. of Thetford, Megantic county, Q. — Coll., C. W. Willimott, 1882. — Cambrian, C. (3636.)
		with magnetite. — Boston Asbestos Packing Company's mine, lot 27, range V. of Thetford, Megantic county, Q. — Coll., C. W. Willimott, 1882. — Cambrian, C. (3637.)
		Kings' mine, lot 20, range V. of Thetford, Megantic county, Q. — Coll., C. W. Willimott, 1882. — Cambrian, C. (3641.)
		Senecal's mine, Black Lake, Coleraine, Megantic county, Q. — Coll., E. Coste, 1884. — Cambrian, C. (4966, 4967.)
		Lionais' mine, Black Lake, Coleraine, Megantic county, Q. — Coll., E. Coste, 1884. — Cambrian, C. (4968.)
		Lot 11, range VIII. of Templeton, Ottawa county, Q. — Coll., S. Barlow, 1890. — Laurentian, A. (5996.)
		Lot 7 or 8, range IX. of Litchfield, Pontiac county, Q. — Laurentian, A. (3506.)
		Lot 8, range IX. of Ross, Renfrew county, O. — Coll., C. W. Willimott, 1883. — Laurentian, A. (3642.)
		North Burgess, Lanark county, O. — Coll., H. G. Vennor, 1873. — Laurentian, A. (3645.)
		Lot 7, range XI. of Elzevir, Hastings county, O. — Presented by Joseph James, Bridgewater, O., 1890. (4764.)
		Boston Asbestos Packing Company's mine, lot 27, range V. of Thetford, Megantic county, Q. — Coll., C. W. Willimott, 1882. — Cambrian, C. I. (3638.)
		(1) mill-board, manufactured from asbestos No. 3638. (3638a.)
		(2) steam packing do do do (3638b.)
		(3) sheeting do do do (3638c.)
		(4) yarn do do do (3638d.)
		(5) mitts do do do (3638e.)

Nos. 3638a and b presented by the Boston Asbestos Packing Company; Nos. 3638c and d presented by Dr. Ellis; No. 3638e presented by T. Sheridan.

Specimens of this mineral are shown in upright wing-case 22.

Upright  
table-case  
30.

## MICA.

**Biotite or magnesium-iron mica.**

**Biotite.**—Lot 38, range I. of Bouchette, Ottawa county, Q.—Presented by P. Grace, 1891.—Laurentian, A. (821.)

Upright  
wing-case  
23.

**Muscovite or potassium mica.**

- Muscovite.**—Villeneuve mica mine, lots 31 and 32, range I. of Villeneuve, Ottawa county, Q.—Presented by W. A. Allan, 1885.—Laurentian, A. (5229.)
- Lots 4 and 5, range XI. of Miller, Frontenac county, O.—Presented by R. C. W. McNaig, 1891.—Laurentian, A. (959.)
- At the junction of Canoe River with the Coldwater River, E.C.—Coll., J. McEvoy, 1891. (867.)
- One hundred and twenty miles north-east of Clinton, C.C.—Presented by F. W. Foster, 1885. (5251.)
- Skuzzy Creek, near North Bend, west side of Fraser River, B.C.—Presented by J. W. Mackay, 1890. (5999.)

**Phlogopite or magnesium mica.**

- Phlogopite.**—Lot 1, range II. of the Augmentation of Grenville, Argenteuil county, Q.—Coll., C. W. Willimott, 1889.—Laurentian, A. (792.)
- Lot 9, range VI. of Grenville, Argenteuil county, Q.—Laurentian, A. (794.)
- Lot 17, range VII. of Grenville, Argenteuil county, Q.—Laurentian, A. (868.)
- Lot 1, range X. of Grenville, Argenteuil county, Q.—Laurentian, A. (788.)
- Lot 19, range VIII. of Portland, Ottawa county, Q.—Presented by Thomas Daly, 1887.—Laurentian, A. (5432.)
- South half of lot 10, range X. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (2487.)
- McLaurin's mine, lot 9, range XI. of Templeton, Ottawa county, Q.—Presented by J. McLaurin, 1887.—Laurentian, A. (5442.)
- Hull mica mine, north half of lot 10, range V. of Hull, Ottawa county, Q.—Presented by E. B. Haycock, 1891.—Laurentian, A. (996.)
- Lot 9, range XII. of Hull, Ottawa county, Q.—Presented by Thomas Warwicker, 1882.—Laurentian, A. (2454.)
- Lot 13, range XV. of Hull, Ottawa county, Q.—Presented by C. E. D. Chubbuck, 1890.—Laurentian, A. (4865.)
- Lot 1, range IV. of Masham, Ottawa county, Q.—Laurentian, A. (4862.)
- Áylwin, Ottawa county, Q.—Presented by S. R. Brook, 1889.—Laurentian, A. (787.)
- Lot 22, range II. of Cawood, Pontiac county, Q.—Laurentian, A. (5576.)
- South Burgess, Leeds county, O.—Presented by Capt. Thorpe.—Laurentian, A. (865.)
- Lot 6, range VIII. of North Burgess, Lanark county, O.—Coll., C. W. Willimott, 1879.—Laurentian, A. (2540.)
- North shore of Hudson Strait, opposite Upper Savage Island, Baffin Land.—Coll., R. Bell, 1875.—Laurentian, A. (5344.)

## VII.—BRINES, SALT, AND MINERAL WATERS.

## BRINES AND SALT.

- Upright  
wing-case  
24.
- Brine.**—Baddeck, Victoria county, Cape Breton, N.S.—Coll., H. Fletcher, 1875.—Carboniferous, G. I. (2591.)
- Salt Springs, two and a quarter miles east of Springhill Mines, Cumberland county, N.S.—Coll., S. Barlow, 1875.—Carboniferous, G. I. (2592.)
- Salt.**—Manufactured from a brine found at Sussex, King's county, N.B.—Coll., L. W. Bailey, 1875. (2593.)
- Brine.**—Kincairdine, Bruce county, O.—Silurian, E. 5. (2440.)
- (1) Common salt manufactured from brine No. 2440. (2440a.)
- (2) Fine do do do (2440b.)
- Bruce Salt Company, Kincairdine, O.
- Salt (fine).**—Manufactured from a brine found at Kincairdine, Bruce county, O. Rightmyer's Salt Works, Kincairdine, O. (2441.)
- (common).—Manufactured from a brine found at Kincairdine, Bruce county, O. (2442.)
- (1) Fine salt, manufactured from the same brine as No. 2442.—Gray & Scott, Kincairdine, O. (2442a.)
- Brine.**—Seaforth, Huron county, O.—Silurian, E. 5. (2587.)
- (1) Coarse salt, manufactured from brine No. 2587. (2587a.)
- (2) Common fine salt do do do (2587b.)
- (3) Ground table salt do do do (2587c.)
- Coleman & Gouinlock, Seaforth, O.
- Salt (coarse).**—Manufactured from a brine found at Clinton, Huron county, O. (2588.)
- (1) Fine salt, manufactured from the same brine as No. 2588. (2588a.)
- (2) Dairy salt, manufactured from the same brine as No. 2588. (2588b.)
- Stapleton Salt Works, Clinton, O.
- Brine.**—Goderich, Huron county, O.—Silurian, E. 5. (2589.)
- (1) Fine salt, manufactured from brine No. 2589.—Tecumseh Salt Works, Goderich, O. (2589a.)
- Goderich, Huron county, O.—Silurian, E. 5. (2590.)
- (1) Coarse salt, manufactured from brine No. 2590. (2590a.)
- (2) Fine do do do do (2590b.)
- International Salt Works, Goderich, O.
- Salt (fine).**—Manufactured from a brine found at Goderich, Huron county, O.—Samuel Platt, Goderich, O. (2594.)
- Brine.**—Port Franks, Bosanquet, Lanloton county, O. (2596.)
- (1) Coarse salt, manufactured from brine No. 2596.—Williams & Murray, Port Franks, O. (2596a.)
- Salt deposit,** from the surface at springs three miles north of Bell River, and a mile and a quarter back from the shore of Lake Winnipegosis, Manitoba.—Coll., D. B. Dowling, 1889. (2557.)
- Saline deposit,** from the bed of a dried up lake near Maple Creek, district of Assiniboa, N.W.T.—Coll., R. G. McConnell, 1883. (5564.)
- From a lake thirty-three miles east of Wood Mountain Post, Traders Pond, district of Assiniboa, N.W.T.—Coll., G. M. Dawson, 1874. (5565.)

Salt.

Brine.

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**BRINES AND SALT**—*Continued.*

- Salt.**—Salt River, one hundred miles north-west of Fort Chipweyan, Lake Athabasca, N.W.T.—Coll., John Macoun, 1875.—Devonian, F. (5204.) Upright wing-case 24.—*Continued.*
- Brine.**—Nanaimo, Vancouver Island, B.C.—Coll., J. Richardson, 1872.—Crystalline, K. (5205.)

**MINERAL WATERS.**

Agreeably with the classification here adopted, — that of Dr. T. Sterry Hunt,—

**Class I.**—Includes saline waters containing chloride of sodium, with large portions of chlorides of calcium and magnesium, sometimes with sulphates. The carbonates of lime and magnesia are either present only in very small quantities, or are altogether wanting.

**Class II.**—Includes a large number of saline waters, which differ from the first in containing besides the chlorides of sodium, calcium and magnesium, considerable portions of bicarbonates of lime and magnesia, the latter carbonate generally predominating. Small quantities of oxide of iron, and of baryta and strontia, are frequently present.

**Class III.**—Includes those saline waters which contain, besides chloride of sodium, a portion of carbonate of soda, with bicarbonates of lime and magnesia. Small amounts of baryta, strontia, and of boracic and phosphoric acids, are often present in these waters, and bromides and iodides are very rarely wanting.

**Class IV.**—Differs from the last in containing but a small proportion of chloride of sodium, while the carbonate of soda predominates.

**Class V.**—Includes acid waters, which are remarkable for containing a large proportion of free sulphuric acid, with sulphates of lime, magnesia, protoxide of iron, and alumina.

**Class VI.**—Includes some neutral saline waters in which the sulphates of lime, magnesia, and the alkalis predominate, chlorides being present only in very small amounts.

**Waters of the first class.**

- Mineral water.**—Seigniory of Rivière Onelle, Kamouraska county, Q. (2597.)
- Bay St. Paul, Charlevoix county, Q. (2598.)
  - Saline spring, Eastman's Springs, Gloucester, Carleton county, O. (2599.)
  - McDonell's spring, Hallowell, Prince Edward county, O. (2600.)
  - Hubbs' spring do do (2601.)
  - Upper well, Kingston, Frontenac county, O. (2602.)
  - Lower well do do (2603.)
  - Lot 32, range III. of Whitby, Ontario county, O. (2604.)
  - Ancaster, Wentworth county, O. (2605.)

**Waters of the second class.**

- Mineral water.**—Trudel's spring, Ste. Geneviève, Champlain county, O. (2606.)
- Ferry spring do do (2607.)
  - Cuxton, St. Maurice county, Q. (2608.)
  - St. Léon, Maskinongé county, Q. (2609.)



## MINERAL WATERS—Continued.

## Waters of the second class—Continued.

Upright	<b>Mineral water</b> —Lanoraie, Joliette county, Q. (2610.)
wing-case	— Boucher's spring, Berthier, Berthier county, Q. (2611.)
24.—	— Aurora spring, Point-du-Jour, L'Assomption county, Q. (2612.)
Continued.	— Sulphur spring, Pike River, Sabrevois, Iberville county, Q. (2613.)
	— Saline spring do do do (2614.)
	— Loizeau's spring, Baie du Febvre, Nicolet county, Q. (2615.)
	— Lefort's spring do do (2616.)
	— Lot 9, range X. of Alfred, Prescott county, O. (2617.)
	— Intermittent spring, Caledonia, Prescott county, O. (2618.)
	— Plantagenet spring, Plantagenet, Prescott county, O. (2619.)
	— Georgian spring do do (2620.)
	— McIntosh's spring do do (2621.)
	— Borthwick's spring, lot 19, range IV. of Gloucester, Carleton county, O. (2622.)
	— Ancaster, Wentworth county, O. (2623.)
	— St. Catharines, Lincoln county, O. (2624.)

## Waters of the third class.

<b>Mineral water.</b> —Couchène's spring, Baie du Febvre, Nicolet county, Q. (2625.)
— Houle's spring do do (2626.)
— Lot 25, range III. of Rawdon, Montcalm county, Q. (2627.)
— Providence spring, St. Hyacinthe, St. Hyacinthe county, Q. (2628.)
— Saline spring, Varennes, Verchères county, Q. (2629.)
— Gas spring do do (2630.)
— Belœil, Verchères county, Q. (2631.)
— Cherrier's spring, Chambly, Chambly county, Q. (2632.)
— Gas spring, Caledonia, Prescott county, O. (2633.)
— Saline spring do do (2634.)
— White sulphur spring do (2635.)
— Lot 9, range VI. of Hawkesbury, Prescott county, O. (2636.)
— Sulphur spring, Eastman's Springs, Gloucester, Carleton county, O. (2637.)
— Gillan's spring, lot 10, range II. of Fitzroy, Carleton county, O. (2638.)

## Waters of the fourth class.

<b>Mineral water.</b> —Marcotte's Mills, Jacques Cartier River, Portneuf county, Q. (2639.)
— Méthot's Mills, Lotbinière county, Q. (2640.)
— Hébert's springs, Nicolet, Nicolet county, Q. (2641.)
— Jetté's spring, Chambly, Chambly county, Q. (3729.)
— St. Ours, Richelieu county, Q. (3730.)
— Miller's spring, Henryville, Iberville county, Q. (3731.)
— Lot 27, range III. of Rawdon, Montcalm county, Q. (3732.)

Prase (var. c

MINERAL WATERS—Continued.

Waters of the fifth class.

- Mineral water.—McKinley's spring, Niagara, Lincoln county, O. (3733.)  
 — Chippewa, Welland county, O. (3734.)  
 — Sour spring, Indian Reserve, Tuscarora, Brant county, O. (3735.)

Upright  
wing-case  
24.—  
Continued.

Waters of the sixth class.

- Mineral water.—Young's spring, Hamilton, Wentworth county, O. (3736.)  
 — Lot 3, range XII. of Charlotteville, Norfolk county, O. (3737.)  
 — Blue spring, lot 53 of Brant, Bruce county, O. (3738.)

VIII.—MINERALS APPLICABLE TO THE FINE ARTS AND JEWELLERY.

Miscellaneous Ornamental Minerals and Rocks.

- Amethyst.—Amethyst Harbour, Thunder Bay, Lake Superior, O.—Coll., R. Bell, 1875.—Cambrian, C 1. (843.)  
 Agate.—Scot's Bay, King's county, N.S.—Coll., C. W. Willimott, 1883.—Triassic, H. (4819.)  
 — cut and polished (two specimens).—From the same locality as No. 4819.—Coll., C. W. Willimott, 1883.—Triassic, H. (4820.)  
 — cut and polished.—Victoria Harbour, King's county, N.S.—Coll., C. W. Willimott, 1883.—Triassic, H. (4927.)  
 — Horseshoe Cove, Cape d'Or, Cumberland county, N.S.—Coll., C. W. Willimott, 1888.—Triassic, H. (5680.)  
 — (moss).—Cut and polished.—Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1888.—Triassic, H. (5715.)  
 — cut and polished.—Michipicoten Island, Lake Superior, O.—Cambrian, C 1. (826.)  
 — (in trap).—Michipicoten Island, Lake Superior, O.—Cambrian, C 1. (2574.)  
 — cut and polished.—Thunder Bay, Lake Superior, O.—Cambrian, C 1. Framed tablet of 154 specimens set in plaster. (830.)  
 — cut and polished (two specimens).—Thunder Bay, Lake Superior, O.—Cambrian, C 1. (844.)  
 — cut and polished.—From mountains at the head of Nicoamen River, B.C.—Coll., G. M. Dawson, 1889. (1523.)  
 — cut and polished.—Stuart Lake, B.C.—Coll., G. M. Dawson, 1879. (5555.)  
 — cut and polished.—Vicinity of Kamloops, B.C.—Coll., G. M. Dawson, 1879. (5719.)  
 — Savona Mountain, south of Savona station, C. P. R., B.C.—Coll., G. M. Dawson, 1890. (5973.)  
 — cut and polished (four specimens).—From the same locality as No. 5973.—Coll., G. M. Dawson, 1890. (5974.)  
 — cut and polished (four specimens).—Queen Charlotte Islands, B.C.—Presented by the Marquis of Lorne, 1883. (4645.)  
 Prase (var. of quartz).—Cut and polished.—Savona Mountain, south of Savona station, C. P. R., B.C.—Coll., G. M. Dawson, 1890. (1388.)

Upright  
wing-case  
25.

**Miscellaneous Ornamental Minerals and Rocks—Continued.**

- Upright  
wing-case  
25.—  
Continued.
- Jasper.**—Cut and polished.—Grindstone Island, Magdalen Islands, Q.—Coll., J. Richardson, 1880. (2581.)  
— cut and polished (three specimens).—Rivière Ouelle, Kamouraska county, Q.—Coll., J. Richardson. (855.)  
— cut and polished.—Lot 15, range X. of Hull, Ottawa county, Q.—Coll., A. E. Barlow, 1883.—Laurentian, A. (4656.)  
— cut and polished.—From the same locality as No. 4656.—Coll. C. W. Willimott, 1883.—Laurentian, A. (5316.)
- Porcellanite.**—Two Islands, Cumberland county, N.S.—Coll., C. W. Willimott, 1883. (5533.)

(The following eight named are mounted on glass in a frame.)

- Amethyst.**—Cut and polished (twenty-one specimens).—Thunder Bay, Lake Superior, O. (854.)  
**Jasper, agate, gneiss and labradorite, mosaic of, (857.)**  
**Agates, mosaic of, (858.)**  
**Jasper, agate, gneiss, epidote and labradorite, mosaic of, (859.)**  
**Jasper agate, do heliotrope do do (2499.)**  
**Agate.**—Seal and impression from same. (2499.)  
**Heliotrope do do (2500.)**  
**Labradorite.**—Cut and polished, in imitation of caterpillars, &c. (nine specimens). (2501.)

(The following six named are mounted on glass in a frame.)

- Labradorite.**—Cut and polished (nine specimens).—Labrador. (2491.)  
**Jasper conglomerate.**—Cut and polished.—Bruce Mines, Lake Huron, O. (2492.)  
**Epidote.**—Cut and polished.—Shickshock Mountains, Gaspé, Q. (2493.)  
**Perthite.** do North Burgess, Lanark county, O. (2495.)  
**Agates and carnelian.**—Cut and polished (ten specimens).—Lake Superior, O. (2496.)  
**Gneiss.**—Cut and polished (six specimens).—Ramsay, Lanark county, O. (2497.)  
**Potstone (compact chlorite),** vase of.—Lot 26, range II. of Bolton, Brome county, Q. (674.)  
**Labradorite,** vase of.—Grenville, Argenteuil county, Q. (846.)  
**Lithographic stone,** vase of.—Island of Anticosti, Q. (847.)  
**Jasper conglomerate,** vase of.—Bruce Mines, Lake Huron, O. (848.)  
**Gaspé pebbles.**—Gaspé, Gaspé county, Q.—Coll., T. C. Weston. (5262.)  
**Perthite (interlaminated orthoclase and albite).**—Lot 3, range VI. of North Burgess, Lanark county, O.—Laurentian, A. (836.)  
— cut and polished (four specimens).—From the same locality as No. 836. (822.)  
**Albite (peristerite, Thom.).**—Cut and polished (five specimens).—Lot 19, range IX. of Bathurst, Lanark county, O.—Laurentian, A. (824.)  
**Labradorite.**—Cut and polished.—Labrador.—Laurentian, A. (841.)  
**Wilsonite.**—Cut and polished.—Bathurst, Lanark county, O.—Laurentian, A. (834.)  
**Sodalite.**—Cut and polished.—Vicinity of Ice River, a branch of the Beaver-foot River, south of Kicking Horse Pass, Rocky Mountains, B.C.—Coll., G. M. Dawson, 1884. (5370.)  
**Nephrite (jade).**—From near old Indian village, Lytton, B.C. (5736-5740.)  
— Lewis River, a tributary of the Yukon River, N.W.T. (5741-5745.)

NOTE.—Of the foregoing Nos. 5736-5738 and 5741-5745 were collected by Dr. G. M. Dawson (1887, 1888), and Nos. 5739 and 5740, by Dr. B. J. Harrington (1888).

**Miscellaneous Ornamental Minerals and Rocks—Continued.**

- Slate** from Danville, Shipton, Richmond county, Q., inlaid with serpentine and limestone. (551.)
- inlaid with perthite and peristerite in imitation of a butterfly—body made of labradorite. (853.)
- (The following ten specimens are grouped on glass on wooden rest.)
- Serpentine**.—Cut and polished.—Melbourne, Richmond county, Q. (5263.)
- Jasper conglomerate**.—Cut and polished.—Bruce Mines, Lake Huron, O. (5264.)
- Gneiss**.—Cut and polished.—Ramsay, Lanark county, O. (5265.)
- Porphyry** do Grenville, Argenteuil county, Q. (5266.)
- Wilsonite** do Bathurst, Lanark county, O. (5267.)
- Serpentine** do Orford, Sherbrooke county, Q. (5268.)
- Limestone** do Mudoc, Has sngs county, O. (5269.)
- Gneiss** do Grenville, Argenteuil county, Q. (5270.)
- Epidote** do Shickshock Mountains, Gaspé county, Q. (5271.)
- Labradorite** do Labrador. (5272.)
- Porphyritic pebble**.—Schooner Pond beach, Cape Breton county, N.S. (4648.)
- Porphyry**.—Cut and polished.—Lot 9, range—of the Augmentation of Grenville, Argenteuil county, Q.—Laurentian, A. (2556.)
- cut and polished.—Lot 4, range VI. of Grenville, Argenteuil county, Q.—Laurentian, A. (2558.)
- cut and polished.—Lot 8, range VIII. of Chatham, Argenteuil county, Q.—Laurentian, A. (2490.)
- inlaid cross.—From the same locality as No. 2490. (2488.)
- cut and polished.—Lot 3, range V. of Grenville, Argenteuil county, Q.—Laurentian, A. (5369.)
- cut and polished.—South side of Desbarat's location, Lake Superior, O.—Coll., W. E. Logan, 1846 (4928.)
- Alabaster**, (gypsum) cross of.—Hillsborough, Albert county, N.B.—Coll., C. W. Willimott, 1890. (2482.)
- Serpentine**.—Polished (four specimens).—Templeton, Ottawa county, Q.—Presented by A. Taylor, Ottawa, 1886.—Laurentian, A. (832.)
- Serpentine limestone**.—Texada Island, B.C.—Coll., G. M. Dawson, 1875.—Carboniferous, G. Four-inch cube, polished. (2489.)
- Red granite**, small column of.—Polished.—St. George, Charlotte county, N.B.—Presented by the Bay of Fundy Red Granite Company, 1875. (2559.)
- Amethyst**, associated with fluor coated with pyrite.—McKenzie River, Thunder Bay, Lake Superior, O.—Coll., R. Bell, 1875.—Huronian, B. (5144.)
- Jasper**.—Cape Sharp, Cumberland county, N.S.—Coll., C. W. Willimott, 1888.—Triassic, H. (5678.)
- From the same locality as No. 5678, but differing in colour.—Coll., C. W. Willimott, 1888.—Triassic, H. (5721.)
- Lot 15, range X. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1883.—Laurentian, A. (2448.)
- Lot 6, range I. of Grenville, Argenteuil county, Q.—Laurentian, A. (4657.)
- Jasper conglomerate**.—Bruce Mines, Lake Huron, district of Algoma, O.—Coll., R. Bell, 1875.—Huronian, B. (863.)
- Rock Lake, Thessalon River, district of Algoma, O.—Coll., G. F. Lount, 1876.—Huronian, B. (4651.)
- Quartzite**, polished.—St. Joseph Island (north shore), Lake Huron, O.—Presented by C. Chapman, 1889.—Huronian, B. (3623.)

Upright  
wing-case  
25.—  
Continued.

Upright  
wing-case  
26.

**Miscellaneous Ornamental Minerals and Rocks—Continued.**

- Upright  
wing-case  
26.—  
Continued.
- Banded chert.**—Thunder Bay, Lake Superior, O. (823.)
- Albite.**—Villeneuve mica mine, lot 31, range I. of Villeneuve, Ottawa county, Q.—Coll., C. W. Willimott, 1886.—Laurentian, A. (5468.)
- Huronite,** polished.—Timber limit No. 90, a quarter of a mile north of Murphy Lake, district of Algoma, O.—Coll., A. E. Barlow, 1891.—Huronian, B. (995.)
- Wilsonite.**—Lot 27, range VIII. of Portland East, Ottawa county, Q.—Coll., J. F. Torrance, 1885.—Laurentian, A. (4655.)
- Serpentine,** polished (four specimens).—Mount Albert, Shickshock Mountains, Gaspé county, Q.—Coll., J. Richardson, 1858. (4654.)
- polished (five specimens).—Lot 12, range XII. of Orford, Sherbrooke county, Q.—Coll., J. Richardson.—Cambrian, C I. (2593.)
- polished (five specimens).—Brompton Lake, Orford, Sherbrooke county, Q.—Cambrian, C I. (4650.)
- polished.—Lot 26, range II. of Grenville, Argenteuil county, Q.—Coll., C. W. Willimott, 1885.—Laurentian, A. (805.)
- polished.—Lot 3, range VIII. of North Burgess, Lanark county, O.—Presented by W. J. Morris, Perth, O., 1875.—Laurentian, A. (4659.)
- polished.—North Burgess, Lanark county, O.—Laurentian, A. (4660.)
- Rensselaerite.**—Lot 14, range IX. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1885.—Laurentian, A. Dressed block, 12 by 12 by 6 inches. (5363.)
- Limestone conglomerate,** polished.—Trois Pistoles, Temisconata county, Q.—Cambrian, C. (4649.)
- Limestone,** polished.—Hampstead, Queen's county, N.B.—Coll., L. W. Bailey, 1871.—Carboniferous, G I. (2575.)
- polished.—St. Joseph, Beauce county, Q.—Cambrian, C I. (838.)
- polished.—Lot 21, range III. of Leslie, Pontiac county, Q.—Coll., H. G. Vennor, 1876.—Laurentian, A. (4652.)
- polished.—Arnprior, Renfrew county, O.—Laurentian, A. (850.)
- polished.—West side of the Gatineau River, Wakefield (?), Ottawa county, Q.—Laurentian, A. (5032.)
- polished (three specimens).—Red Rock, Nipigon Bay, Lake Superior, O.—Coll., E. D. Ingull, 1884.—Cambrian, C. (5033.)
- polished (two specimens).—Echo Lake, district of Algoma, O.—Presented by the Warmington Stone and Marble Co., Garden River, O., 1891.—Huronian, B. (347.)
- polished.—Garden River, district of Algoma, O.—Presented by the Warmington Stone and Marble Company, Garden River, O., 1891. (376.)
- Gneiss.**—Lot 3, range V. of Grenville, Argenteuil county, Q.—Laurentian, A. (4658.)
- Diorite.**—Cut and polished.—Acton, Bagot county, Q. (842.)
- Lithographic stone.**
- Lithographic stone.**—Lot 7, range IV. of Marnora, Hastings county, O.—Cambro-Silurian, D I. (864.)
- (1) Lithographic stone (864) on which is engraved facsimile autographs of all the governors of Canada, both French and English, from the time of Champlain, in 1612, to that of Lord Monek, in 1862; with the exception of two of the French governors in the first half of the seventeenth century. (864a.)
- (2) Lithographic stone (864) on which is engraved a n
- (864b.)

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**Lithographic stone—Continued.**

- Lithographic stone**—Lot 14, range XV. of Harvey, Peterborough county, O.—Cambro-Silurian, D I. (2502.) Upright wing-case 26.—  
 — Lot 51, ranges I. and II. of Brant, Bruce county, O.—Silurian, E 5. (856.) Continued.
- (1) Lithographic stone (856) on which is engraved a Bank cheque. (856a.)  
 (2) Lithographic stone (856) on which is engraved a vignette of an Indian chief. (856b.)  
 (3) Lithographic stone (856) on which is engraved a drawing of "Eozoon Canadense." (856c.)
- Inverhuron Quarries, Inverhuron, Bruce county, O. (4647.)

The following series of ornamental stones were cut, polished and presented by C. P. Willimott & Co., of Ottawa.

- Actinolite in quartz** (Thetis hair stone).—Hull, Ottawa county, Q. (5902.) Table-case 69.  
**Agate**.—Two Islands, Cumberland county, N.S. (5891, 5897.)  
 — Cape d'Or do do (5893, 5901.)  
 — Cape Spencer do do (5908.)  
 — Blomidon, King's county, N.S. (5894.)  
 — Scot's Bay do do (5904.)  
 — Templeton, Ottawa county, Q. (5905.)  
 — Lake Superior, district of Thunder Bay, O. (5924.)  
**Albite**.—Villeneuve, Ottawa county, Q. (5880.)  
 — Ross, Renfrew county, O. (5882.)  
**Amazon stone**.—Wakefield, Ottawa county, Q. (5876.)  
**Amethyst**.—Lake Superior, district of Thunder Bay, O. (5887.)  
**Asteriated quartz**.—Wakefield, Ottawa county, Q. (5877.)  
**Aventurine felspar**.—Sebastopol, Renfrew county, O. (5872.)  
 — Ross, Renfrew county, O. (6532.)  
**Breccia**.—Grenville, Argenteuil county, Q. (5928.)  
**Banded chert**.—James Bay, Hudson Bay. (5923.)  
**Chlorastrolite**.—Lake Superior. (5881.)  
**Garnet**.—Stikecne River, B.C. (5886.)  
 — Wakefield, Ottawa county, Q. (5889.)  
**Hellotrope**.—Two Islands, Cumberland county, N.S. (5906.)  
**Hornstone**.— do do do (5910.)  
**Jasper**.—Fisherman's Cove do do (5895.)  
 — Two Islands do do (5898, 5900.)  
 — Partridge Island do do (5915.)  
 — Cape Sharp do do (5914, 5919, 5920.)  
 — Gaspé, Gaspé county, Q. (5935.)  
 — Hull, Ottawa county, Q. (5896, 5926.)  
 — Hull, Ottawa county, Q. (5917, 5921.)  
 — Bruce Mines, Lake Huron, district of Algoma, O. (5913.)  
 — Mamainse, Lake Superior, do (5540.)  
 — Cape Jones, Hudson Bay. (5918.)  
**Jasper agate**.—Two Islands, Cumberland county, N.S. (5925.)  
**Jasper conglomerate**.—Bruce Mines, Lake Huron, district of Algoma, O. (5912.)  
**Labradorite**.—Paul Island, Labrador. (5875.)

**Ornamental stones, cut and polished—Continued.**

Table-case 69.-- Continued.	<b>Serpentine limestone</b> —Grenville, Argenteuil county, Q. (5933.)	
	-- (Eozoon Canadense).—Petite Nation, Ottawa county, Q. (5934.)	
	<b>Limonite</b> .—Londonderry, Colchester county, N.S. (5883.)	
	<b>Microcline</b> .—Sebastopol, Renfrew county, O. (5885.)	
	<b>Moss agate</b> .—Two Islands, Cumberland county, N.S. (5899, 5909.)	
	-- Fisherman's Cove do (590C.)	
	-- Partridge Island do (5916.)	
	<b>Obsidian</b> .—Cape d'Or do (5890.)	
	<b>Orthoclase</b> .—Wakefield, Ottawa county, Q. (5873.)	
	<b>Oligoclase?</b> —Psguandenburg Island, (near Parry Sound) Georgian Bay, Lake Huron, O. (5884.)	
	<b>Peristerite</b> .—Bromley, Renfrew county, O. (6533.)	
	<b>Perthite</b> .—North Burgess, Lanark county, O. (5870, 5871.)	
	<b>Porcellanite</b> .—Two Islands, Cumberland county, N.S. (5892, 5907.)	
	<b>Porphyry</b> .—Grenville, Argenteuil county, Q. (5911.)	
	-- Near Onaping, district of Nipissing, O. (5927.)	
	<b>Pyralloite</b> .—Grenville, Argenteuil county, Q. (5929.)	
	-- Hull, Ottawa county, Q. (5930.)	
	<b>Banded quartz</b> —Wakefield, Ottawa county, Q. (5922.)	
	<b>Retinite</b> (Chemawinitite).—Cedar Lake, district of Saskatchewan, N.W.T. (5551.)	
	<b>Scapolite</b> .—Augmentation of Grenville, Argenteuil county, Q. (5878.)	
	<b>Serpentine</b> .—Portland, Ottawa county, Q. (5931.)	
	-- Templeton do (5932.)	
	<b>Sodalite</b> .—Ice River, branch of the Beaver-foot River, south of Kicking Horse Pass, Rocky Mountains, B.C. (5874.)	
	<b>Thompsonite</b> .—Lake Superior, district of Thunder Bay, O. (5879.)	
	<b>Tourmaline</b> .—Wakefield, Ottawa county, Q. (5888.)	

**IX.—MINERALS EMPLOYED, WITH OR WITHOUT PREVIOUS PREPARATION, AS FERTILIZERS.****Apatite, phosphate of lime.**

Upright wing-case 27.	<b>Apatite</b> .—Lot 15, range V. of Grenville, Argenteuil county, Q.—Coll., C. W. Willimott, 1887.—Laurentian, A. (807.)
	-- Cameron's mine, Lochaber, Ottawa county, Q.—Presented by W. C. Edwards, 1883.—Laurentian, A. (2538.)
	-- Emerald mine, lot 19, range XII. of Buckingham, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (949.)
	-- Spring mine, lot 9, range X. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (1153.)
	-- McLaurin's mine, lot 10, range XI. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1883.—Laurentian, A. (5031.)
	-- McLaurin's mine, lot 11, range XI. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (1128.)
	-- Lot 22, range XIII. of Templeton, Ottawa county, Q.—Presented by F. Fooks, 1882.—Laurentian A. (1171.)
	-- North Star mine, lot 18, range VII. of Portland East, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (978.)

**Apatite, phosphate of lime—Continued.**

- Apatite**—Dugway pit, High Rock mine, lot 7, range VIII. of Portland West, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (1024.)
- Ed. McAndrew's pit, Star Hill mine, lot 8, range VIII. of Portland West, Ottawa county, Q.—Presented by Wm. McIntosh, 1883.—Laurentian, A. (3741.)
- Bonanza pit, Star Hill mine, lot 7, range IX. of Portland West, Ottawa county, Q.—Presented by Wm. McIntosh, 1883.—Laurentian, A. (3742.)
- Hunter's pit, Star Hill mine, lot 7, range IX. of Portland West, Ottawa county, Q.—Presented by Wm. McIntosh, 1883.—Laurentian, A. (3733.)
- Smith's pit, Star Hill mine, lot 9, range VIII. of Portland West, Ottawa county, Q.—Presented by Wm. McIntosh, 1883.—Laurentian, A. (3744.)
- Barber's mine, lot 17, range XVI. of Hull, Ottawa county, Q.—Coll., C. W. Willmott, 1883.—Laurentian, A. (951.)
- Haldane's mine, lot 12, range I. of Wakefield, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (744.)
- Wilson's mine, lot 17, range II. of Wakefield, Ottawa county, Q.—J. F. Torrance, 1883.—Laurentian, A. (1207.)
- Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (143.)
- Lot 24, range IV. of Wakefield, Ottawa county, Q.—Coll., C. W. Willmott, 1883.—Laurentian, A. (959.)
- Harris' mine, lot 30, range IX. of Wakefield, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (953.)
- Lots 11 and 12 (west half), range VII. of North Burgess, Lanark county, O.—Laurentian, A. (513.)
- (1) Apatite ground for conversion into superphosphate. (513a.)
- (2) Superphosphate of lime prepared from 513a. (513b.)
- Presented by A. Cowan, Brockville Chemical and Superphosphate Works, 1875.
- Lot 16, range III. of North Burgess, Lanark county, O.—Coll., H. G. Vennor, 1871.—Laurentian, A. (785.)
- Lot 2, range VIII. of North Burgess, Lanark county, O.—Coll., H. G. Vennor, 1873.—Laurentian, A. (956.)
- Lot 9, range V. of North Burgess, Lanark county, O.—Laurentian, A. (666.)
- North Elmsley, Lanark county, O.—Laurentian, A. (774.)
- green.—Lot 25, range VIII. of North Elmsley, Lanark county, O.—Laurentian, A. (781.)
- red.—Lot 25, range VIII. of North Elmsley, Lanark county, O.—Laurentian, A. (1020.)
- Sebastopol, Renfrew county, O.—Presented by F. Fooks, 1882.—Laurentian, A. (3705.)
- Lot 1, range XVII. of Bedford, Frontenac county, O.—Coll., H. G. Vennor, 1871.—Laurentian, A. (786.)
- Lot 14, range VI. of Storrington, Frontenac county, O.—Presented by W. J. Morris, 1877.—Laurentian, A. (2539.)
- Lot 21, range XV. of Storrington, Frontenac county, O.—Coll., H. G. Vennor, 1875.—Laurentian, A. (957.)
- Lot 2., range I. of Hinchinbrook, Frontenac county, O.—Presented by J. P. Donnelly, 1875.—Laurentian, A. (958.)

Upright  
wing-case  
27.—  
*Continued.*

Continued.  
(5933.)  
county, Q. (5934.)  
(9, 5909.)  
(C.)  
(6.)  
(0.)  
Georgian Bay, Lake  
(92, 5907.)  
atchewan, N.W.T.  
Q. (5878.)  
n of Kicking Horse  
(5879.)  
**OUT PREVIOUS**  
, Q.—Coll., C. W.  
Presented by W. C.  
n, Ottawa county,  
ian, A. (949.)  
awa county, Q.—  
, A. (1153.)  
n, Ottawa county,  
entian, A. (5031.)  
, Ottawa county,  
entian, A. (1128.)  
ty, Q.—Presented  
)  
und East, Ottawa  
—Laurentian, A.



Specimens illustrating the distribution of apatite are shown in table-cases 34 and 35 (in part), and the mineral associations of apatite are shown in table-cases 35 (in part) and 36 and in upright table-cases 27 and 28.

#### Phosphatic rock.

- Upright wing-case 27.—  
Continued.
- Phosphatic rock.**—Mouth of Macintosh Brook, north shore of East Bay, Cape Breton county, N.S. (693.)
- Rivière Ouelle, Kamouraska county, Q.—Cambrian, C. (952.)
- Wilson River, section 18, township 25, range XX. west of the principal meridian, Manitoba.—Coll., J. B. Tyrrell, 1887. (6525.)

#### Gypsum.

- Gypsum** (ground).—Windsor, Hants county, N.S.—Coll., Prof. How, 1871.—Carboniferous, G 1. (778.)
- Beaver Brook, Colchester county, N.S.—Carboniferous, G 1. (947.)
- Antigonish, Antigonish county, N.S.—Carboniferous, G 1. (1205.)
- Petitesolac, Westmoreland county, N.S.—Carboniferous, G 1. (1219.)
- Oneida, Haldimand county, O.—Silurian, E 5. (657.)
- Mount Healy, Haldimand county, O.—Silurian, E 5. (1203.)
- Paris, Brant county, O.—Silurian, E 5. (1204.)

Specimens of gypsum from the more important localities of its occurrence are shown in upright wing case 19.

#### Marls.

- Marl.**—Marl Lake, Island of Anticosti (west end), Q.—Presented by F. W. Stockwell, 1885.—Post-Tertiary, M 3. (5135.)
- Ste. Rose, Laval county, Q. (762.)
- Lots 156 and 157 of St. Armand, Missisquoi county, Q.—Post-Tertiary, M 3. (763.)
- Lot 4, range XI. of Stanstead, Stanstead county, Q.—Post-Tertiary, M 3. (771.)
- Thornberry, west side of Mount Royal, Montreal, Hochelaga county, Q.—Post-Tertiary, M 3. (758.)
- River St. Pierre, Hochelaga county, Q.—Post-Tertiary, M 3. (766.)
- Ward No. 5, Hull, Ottawa county, Q.—Presented by J. McArthur, 1885.—Post-Tertiary, M 3. (5117.)
- Lot 17, range VII. of Calumet, Pontiac county, Q.—Presented by E. Marceau, 1891.—Post-Tertiary, M 3. (757.)
- Lot 18, range IV. of West Hawkesbury, Prescott county, O.—Post-Tertiary, M 3. (768.)
- Nepean, Carleton county, O.—Post-Tertiary, M 3. (769.)
- Belleville, Hastings county, O.—Presented by H. W. Mans, 1875.—Post-Tertiary, M 3. (756.)
- Lots 15 and 16, range II. of Sheffield, Addington county, O.—Post-Tertiary, M 3. (764.)
- Storrington, Frontenac county, O.—Post-Tertiary, M 3. (770.)

**Marls—Continued.**

- Marl**—Lot 25, range XV. of Carrick, Bruce county, O.—Post-Tertiary, M 3. (759.)
- Lot 26, range I. of Bentinck, Grey county, O.—Post-Tertiary, M 3. (765.)
- Rockwood, Wellington county, O.—Post-Tertiary, M 3. (605.)
- From thick bed overlying pebbly conglomerate, Forks of Farewell Creek and White Mud River, district of Assiniboia, N.W.T.—Coll., R. G. McConnell, 1883.—Tertiary, L 2. (3750.)
- Found underneath the soil on large proportions of the surface of Cypress Hills, district of Assiniboia, N.W.T.—Coll., R. G. McConnell, 1883.—Tertiary, L 2. (3751.)

Upright  
wing-case  
27.—  
*Continued.*

**SPECIMENS ILLUSTRATING THE DISTRIBUTION OF APATITE.**

- Apatite**.—Lot 5, range XV. of Grenville, Argenteuil county, Q.—Coll., C. W. Willimott, 1889.—Laurentian, A. (1785.)
- Lot 28, range VI. of Buckingham, Ottawa county, Q.—Presented by W. H. Dickson, 1889.—Laurentian, A. (1796.)
- Grant mine, lot 18, range XII. of Buckingham, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1797, 1798, 1799.)
- Lot 17, range XII. of Buckingham, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1800, 1801, 1802.)
- Lot 26, range XII. of Buckingham, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1803.)
- Lot 27, range XII. of Buckingham, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1804.)
- Lochaber, Ottawa county, Q.—Coll., H. G. Vennor, 1878.—Laurentian, A. (1806.)
- Jackson Rae mine, lot 9, range X. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3752.)
- McLaurin's mine, lot 10, range XI. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1885.—Laurentian, A. (3753.)
- McLaurin's mine, lot 11, range XI. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3754.)
- Lot 8, range XII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (3755.)
- Lot 12, range XII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1786-1795.)
- Lot 22, range XIII. of Templeton, Ottawa county, Q. (3756.)
- Watt's mine, lot 6, range I. of Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1807-1811.)
- Lot 7, range I. of Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1812.)
- Lot 7, range VII. of Portland West, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1813.)
- Lot 1, range VIII. of Portland West, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1814.)
- Lot 27, range VIII. of Portland East, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (1815.)
- Lot 15, range X. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3702.)

Table-case  
34.



**SPECIMENS ILLUSTRATING THE DISTRIBUTION OF  
APATITE—Continued.**

- Apatite**—Lot 1, range XVII. of Bedford, Frontenac county, O.—Coll., H. G. Vennor, 1871.—Laurentian, A. (1832.)
- Lot 13, range XI. of Monmouth, Peterborough county, O.—Presented by W. H. Lockhart Gordon, 1890.—Laurentian, A. (5966.)
- Lot 14, range XI. of Monmouth, Peterborough county, O.—Presented by W. H. Lockhart Gordon, 1890.—Laurentian, A. (5967.)
- Lot 15, range XI. of Monmouth, Peterborough county, O.—Presented by W. H. Lockhart Gordon, 1890.—Laurentian, A. (5968.)
- Lot 17, range XI. of Monmouth, Peterborough county, O.—Presented by W. H. Lockhart Gordon, 1890.—Laurentian, A. (5969.)
- Lot 4, range III. of Dudley, Peterborough county, O.—Presented by W. H. Lockhart Gordon, 1890.—Laurentian, A. (5970.)
- Lot 11, range V. of Dysart, Peterborough county, O.—Presented by W. H. Lockhart Gordon, 1890.—Laurentian, A. (5971.)
- Lot 21, range XI. of Harcourt, Peterborough county, O.—Presented by W. H. Lockhart Gordon, 1890.—Laurentian, A. (5972.)
- Lot 3, range VI. of Ferris, district of Nipissing, O.—Presented by J. McCord, 1887.—Laurentian, A. (5452.)
- North side of Eubamet Lake, Albany River, Severn district.—Coll., R. Bell, 1886. (5358.)

Table-case  
35.—  
*Continued.*

Specimens of apatite from some of the more important deposits are shown in upright wing-case 27.

**MINERAL ASSOCIATIONS OF APATITE.**

- Apatite** with fluorite, felspar and calcite.—Augmentation of Grenville, Argenteuil county, Q.—Laurentian, A. (1900.)
- Scapolite**.—Lot 3, range III. of the Augmentation of Grenville, Argenteuil county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (1842.)
- Apatite** and pyroxene.—Lot 18, range XII. of Buckingham, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1838.)
- calcite and smoky quartz.—Lot 18, range XII. of Buckingham, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1862.)
- Calcite**.—Lot 18, range XII. of Buckingham, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1863.)
- Apatite**, graphite and calcite.—Lot 21, range VII. of Buckingham, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1864.)
- and pyrite.—Lot 18, range XII. of Buckingham, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1872.)
- Pyroxene**, calcite and apatite.—Lot 18, range XII. of Buckingham, Ottawa county, Q.—Coll., B. J. Harrington, 1878. (1873.)
- Sphalerite**, calcite and apatite.—Emerald mine, lot 19, range XII. of Buckingham, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (3700.)
- Calcite** with chalcopryrite.—Lot 17, range VI. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1866.)
- Apatite** and calcite.—Lot 7, range VII. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (1897.)
- and scapolite.—Lot 7, range VII. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3762.)

Table-case  
36.

MINERAL ASSOCIATIONS OF APATITE—*Continued.*

- Table-case 36.—  
Continued.
- Pyroxene.**—Lot 15, range VIII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1834.)
- Apatite and mica.**—Lot 15, range VIII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1835.)
- calcite and mica.—Lot 15, range VIII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1839.)
- Pyroxene.**—Lot 15, range VIII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1841.)
- Mica** in calcite.—Lot 15, range VIII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1856.)
- Calcite with mica.**—Lot 8, range IX. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1861.)
- Quartz, calcite and apatite.**—Lot 17, range IX. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1840.)
- calcite, apatite and chalcopryrite.—Lot 17, range IX. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1867.)
- Hornblende, scapolite, pyrite, calcite and tourmaline.**—Jackson Rae mine, lot 9, range X. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3763.)
- Pyrite, apatite and calcite.**—Jackson Rae mine, lot 9, range X. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3764.)
- Pyroxene, scapolite, apatite and pyrite.**—Lot 9, range X. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3767.)
- Apatite and mica.**—McLaurin's mine, lot 11, range IX. of Templeton, Ottawa county, Q.—Coll., A. R. C. Selwyn, 1882.—Laurentian, A. (1825.)
- Pyroxene, apatite and mica.**—McLaurin's mine, lot 11, range XI. of Templeton, Ottawa county, Q.—Coll., A. R. C. Selwyn, 1882.—Laurentian, A. (3768.)
- Apatite and mica.**—Lot 12, range XI. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1831.)
- Orthoclase, with tourmaline and actinolite.**—Lot 15, range XI. of Templeton, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3765.)
- Lot 12, range XII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1850.)
- Apatite and calcite.**—Lot 12, range XII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1860.)
- Scapolite and pyroxene.**—Lot 14, range XII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1858.)
- Pyroxene.**—Lot 16, range XII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1858.)
- Wilsonite.**—Lot 23, range XII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1849.)
- Orthoclase, pyroxene, quartz and apatite.**—Lot 11, range XIII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1844.)
- Titanite and pyroxene.**—Lot 23, range XIII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1851.)
- Pyroxene, prehnite and apatite.**—Lot 23, range XIII. of Templeton, Ottawa county, Q.—Presented by J. G. Miller, 1878.—Laurentian, A. (3766.)
- Apatite, titanite and pyroxene.**—Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1843.)

Mica

Pyrox

Hornbl

Wilson

Mica

Hornbl

Calcit

Ortho

Pyrox

Ortho

Pyrox

Apatit

Pyrox

Apatit

Tourm

Calcite

Scapolit

Pyrox

TE—Continued.

## MINERAL ASSOCIATIONS OF APATITE—Continued.

county, Q.—Coll., B. J. (1834.)  
 Ottawa county, Q.—Laurentian, A. (1835.)  
 Templeton, Ottawa county, Laurentian, A. (1839.)  
 county, Q.—Coll., B. J. (1841.)  
 Ottawa county, Q.—Coll., A. (1856.)  
 Ottawa county, Q.—Coll., A. (1861.)  
 Templeton, Ottawa county, Laurentian, A. (1840.)  
 range IX. of Templeton, Harrington, 1878.—Laurentian, A. (1874.)  
 Jackson Rae mine, lot 6, range I. of Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1879.)  
 range X. of Templeton, Harrington, 1878.—Laurentian, A. (1880.)  
 Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1881.)  
 range XI. of Templeton, Harrington, 1878.—Laurentian, A. (1882.)  
 Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1883.)  
 range XI. of Templeton, Harrington, 1878.—Laurentian, A. (1884.)  
 county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1885.)  
 range XIII. of Templeton, Harrington, 1878.—Laurentian, A. (1886.)  
 Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1887.)  
 Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1888.)  
 county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1889.)  
 Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1890.)

- Mica** (phlogopite).—Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1845.)  
**Pyroxene** with chabazite.—Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1847.)  
**Hornblende**, apatite and mica.—Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1854.)  
**Wilsonite**, pyroxene and apatite.—Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1859.)  
**Mica** (phlogopite).—Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1868.)  
**Hornblende**.—Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1870.)  
**Calcite** and pyroxene.—Little Rapids, Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1874.)  
 — with apatite.—Little Rapids, Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1879.)  
**Orthoclase** with pyroxene and apatite.—Little Rapids, Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1880.)  
**Pyroxene** with apatite and calcite.—Little Rapids, Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1886.)  
 — Little Rapids, Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1887.)  
**Orthoclase** with titanite and pyroxene.—Watt's mine, lot 6, range I. of Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1857.)  
**Pyroxene** with apatite.—Watt's mine, lot 6, range I. of Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1878.)  
**Apatite** and mica.—Watt's mine, lot 6, range I. of Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1881.)  
 — with calcite.—Watt's mine, lot 6, range I. of Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1883.)  
 — and pyroxene.—Watt's mine, lot 6, range I. of Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1884.)  
**Pyroxene** and calcite.—Lot 8, range I. of Portland East, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1882.)  
**Apatite**, pyroxene, chabazite, stilbite and mica.—Lot 17, range VII. of Portland East, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (3724.)  
**Tourmaline**, pyroxene and calcite.—Lot 17, range VII. of Portland East, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (3727.)  
**Calcite** with mica.—Lot 26, range VIII. of Portland East, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (3728.)  
**Scapolite**, pyroxene, apatite and stilbite.—Lot 27, range VIII. of Portland East, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (3722.)  
**Pyroxene**, with stilbite, apatite and mica.—Lot 27, range VIII. of Portland East, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (3723.)

Table-case  
36.—  
Continued.

Upright  
table-case  
27.

## MINERAL ASSOCIATIONS OF APATITE—Continued.

- Upright  
table-case  
27.—  
Continued.
- Calcite** with apatite and chabazite.—Crown Hill, lot 27, range IX. of Portland East, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (3701.)
- Chabazite**, pyroxene and apatite.—Crown Hill, lot 27, range IX. of Portland East, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (3721.)
- Apatite**, pyroxene and mica.—Lot 17, range I. of Portland West, Ottawa county, Q.—Coll., H. G. Vennor, 1873.—Laurentian, A. (1876.)
- with mica.—Lot 17, range I. of Portland West, Ottawa county, Q.—Coll., H. G. Vennor, 1873.—Laurentian, A. (1877.)
- Pyroxene** with chabazite.—Lot 19, range IV. of Portland West, Ottawa county, Q.—Presented by J. G. Miller, 1878.—Laurentian, A. (3699.)
- Apatite**, fluorite and pyrite.—Preston mine, Portland West, Ottawa county, Q.—Presented by J. G. Miller, 1878.—Laurentian, A. (3772.)
- Pyroxene**, apatite and zircon.—High Roek mine, lot 6, range VII. of Portland West, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (1889.)
- Titanite** and pyroxene.—Lyon's mine, Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3782.)
- Tourmaline**, with hornblende and apatite.—Lot 10, range XIV. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (1865.)
- Pyroxene**.—Moore's mine, lot 12, range XVI. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3769.)
- Titanite**, pyroxene and orthoclase.—Moore's mine, lot 12, range XVI. of Hull, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3781.)
- Pyrite**, scapolite and apatite.—Haldane's mine, lot 12, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3691.)
- Epidote**, hornblende, pyrite and apatite.—Haldane's mine, lot 12, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3692.)
- Apatite** and pyrite.—Haldane's mine, lot 12, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3770.)
- Scapolite** and pyrite.—Haldane's mine, lot 12, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3704.)
- Garnet** with calcite and idocrase.—Lot 14, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3698.)
- Calcite** with idocrase and apatite.—Lot 14, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883.—Laurentian, A. (4842.)
- Apatite** with tourmaline and pyroxene.—Lot 14, range I. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3773.)
- Pyroxene** and apatite.—Wilson's mine, lot 17, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3776.)
- Calcite** with apatite.—Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (1875.)

MINERAL ASSOCIATIONS OF APATITE—*Continued.*

- Garnet**, epidote and pyroxene.—Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3726.) Upright table-case 27.—*Continued.*
- Apatite** and pyroxene.—Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3759.)
- Scapolite** and pyroxene.—Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3774.)
- Apatite**, mica and calcite.—Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3775.)
- Pyroxene** and calcite.—Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3778.)
- calcite, apatite and mica.—Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3779.)
- Apatite** in quartz.—Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3780.)
- with calcite.—Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (4824.)
- mica and calcite.—Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (4844.)
- and pyroxene.—Lot 24, range IV. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3697.)
- hornblende and mica.—Lot 24, range IV. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3706.)
- with pyroxene.—Lot 24, range IV. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3718.)
- Gneiss** with apatite.—Lot 22, range V. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3696.)
- Pyroxene**, scapolite and apatite.—McFarlane's mine, lot 3, range VII. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3777.)
- Magnetite**, apatite and orthoclase.—North-west half of lot 20, range II. of Huntley, Carleton county, O.—Coll., C. W. Willimott, 1888.—Laurentian, A. (5664.)
- Apatite** in calcite.—North-west half of lot 20, range II. of Huntley, Carleton county, O.—Coll., C. W. Willimott, 1888.—Laurentian, A. (5665.)
- Calcite**, with apatite and chalcopyrite.—Lot 4, range I. of North Burgess, Lanark county, O.—Coll., H. G. Vennor, 1871.—Laurentian, A. (1893.)
- Apatite** with mica.—North Burgess, Lanark county, O.—Coll., H. G. Vennor, 1871.—Laurentian, A. (1894.)
- Mica** with apatite.—Adams' mine, lot 6, range VIII. of North Burgess, Lanark county, O.—Coll., C. W. Willimott, 1879.—Laurentian, A. (1871.)
- Calcite** and apatite.—Adams' mine, lot 6, range VIII. of North Burgess, Lanark county, O.—Coll., C. W. Willimott, 1879.—Laurentian, A. (1888.)



## MINERAL ASSOCIATIONS OF APATITE—Continued.

- Upright  
table-case  
28.—  
Continued.
- Quartz**, calcite and apatite.—Adams' mine, lot 6, range VIII. of North Burgess, Lanark county, O.—Coll., C. W. Willimott, 1879.—Laurentian, A. (1892.)
- Hematite** with apatite and mica.—Lot 12, range VII. of North Burgess, Lanark county, O.—Coll., H. G. Vennor, 1872.—Laurentian, A. (1895.)
- Calcite**, apatite, mica and chalcopyrite.—Lot 26, range VIII. of North Elmsley, Lanark county, O.—Coll., H. G. Vennor, 1875.—Laurentian, A. (1896.)
- Apatite** and calcite.—Near the Foley mine, lot 11, range VIII. of Bathurst, Lanark county, O.—Coll., B. J. Harrington, 1878.—Laurentian, A. (1898.)
- Calcite** with apatite and fluorite.—Lot 1, range VII. of Ross, Renfrew county, O.—Laurentian, A. (1899.)
- Scapolite**, pyroxene and fluorite.—Lot 13, range VI. of Ross, Renfrew county, O.—Laurentian, A. (3725.)
- Hornblende**, with zircon, apatite and calcite.—Lot 31, range X. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883.—Laurentian, A. (1415.)
- Apatite**, calcite and hornblende.—Lot 31, range XI. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3693.)
- Scapolite**, with apatite, titanite and pyroxene.—Turner's Island, Lake Clear, Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3694.)
- Mica** and pyroxene.—Lot 22, range XII. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3709.)
- Apatite** in calcite.—Turner's Island, Lake Clear, Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3717.)
- with pyroxene.—Lot 31, range XI. of Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3719.)
- Titanite**.—Turner's Island, Lake Clear, Sebastopol, Renfrew county, O.—Coll., C. W. Willimott, 1883.—Laurentian, A. (3720.)
- Scapolite**, titanite, pyroxene and calcite.—Turner's Island, Lake Clear, Sebastopol, Renfrew county, O.—Presented by J. G. Miller, 1881.—Laurentian, A. (3783.)
- Quartz**, mica and apatite.—Lot 4, range XI. of Miller, Frontenac county, O.—Presented by E. G. Powell, 1886.—Laurentian, A. (5412.)

## X.—MINERALS EMPLOYED FOR GRINDING AND POLISHING.

**Sandstones and mica slates and articles manufactured therefrom.**

- Upright  
wing-case  
28.
- Grindstone**.—Manufactured from a sandstone found at Clifton, parish of New Bandon, Gloucester county, N.B.—Coll., L. W. Bailey, 1875.—Carboniferous, G. (1227.)
- manufactured from the sandstone of the Clifton Quarries, parish of New Bandon, Gloucester county, N.B.—Presented by Joseph Read & Co., 1880.—Carboniferous, G. (2579.)
- manufactured from a sandstone found at the Bay of Chaleurs, Bonaventure county, Q.—Presented by W. L. McArthur & Co.—Carboniferous, G. (3499.)
- manufactured from a sandstone found in the vicinity of the Allumette Rapids, Pembroke, Renfrew county, O.—Coll., W. E. Logan, 1845.—Cambro-Silurian, D I. (691.)

Grindst

Rock, s

Mica sla

Sandsto

Whetsto

Infus

Infusorial

*Continued.*North Burgess,  
1879.—Lauren-Burgess, Lanark  
Laurentian, A.North Elmsley,  
5.—Laurentian,T. of Bathurst,  
1878.—Lauren-

Renfrew county,

Renfrew county,

T. of Sebastopol,  
1883.—Lauren-Sebastopol, Renfrew  
Laurentian, A.T. of Lake Clear,  
W. Willimott,T. of ... county, O. —  
(3709.)Renfrew county,  
... A. (3717.)Renfrew county,  
... A. (3719.)... county, O.—Coll.,  
(3719.)... Clear, Sebasto-  
... filler, 1881.—... county, O.—  
A. (5412.)**POLISHING.**

... herefrom.

... parish of New  
Bailey, 1875.... ries, parish of  
Joseph... of Chaleurs,  
McArthur &... of the Allu-  
Coll., W. E.**Sandstones and mica slates, etc.—Continued.****Grindstone**—manufactured from a sandstone found at Pembroke, Renfrew county, O.—Coll., T. C. Weston, 1875.—Cambro-Silurian, D 1. (692.)

— manufactured from a sandstone found at Nanaimo, Vancouver Island, B.C.—Coll., J. Richardson, 1871.—Cretaceous, K. (690.)

**Rock**, suitable for mill-stones.—Lot 3, range V. of Grenville, Argenteuil county, Q.—Laurentian, A. (688.)

— suitable for mill-stones.—L'Anse à la Vieille, Port Daniel, Bonaventure county, Q.—Coll., R. Bell, 1892. (689.)

**Mica slate**, suitable for whetstones.—Lot 14, range II. of Shipton, Richmond county, Q.—Pre-Cambrian, B? (661.)

— suitable for whetstones.—Lot 2, range XI. of Putton, Brome county, Q. (685.)

**Sandstone**, suitable for whetstones.—From quarry above the Monastery Brook saw-mill, Antigonish, Antigonish county, N.S.—Coll., T. C. Weston, 1886.—Carboniferous, G-M. (5416.)

— suitable for polishing.—Dorchester, Westmoreland county, N.B.—Presented by Read, Stevenson &amp; Co., 1875.—Carboniferous, G. (1225.)

**Whetstones**.—Manufactured from a mica slate found at Massawippi Lake, lot 5, range IX. of Hatley, Stanstead county, Q.—Cambrian, C 1. (680.)

— manufactured from a mica slate found on lot 28, range VII. of Stanstead, Stanstead county, Q.—Cambrian, C 1. (682.)

— manufactured from a mica schist found on lot 15, range I. of Stanstead, Stanstead county, Q. (683.)

— manufactured from a mica slate found on lot 23, range VI. of Bolton, Brome county, Q.—Cambrian, C 1. (684.)

— manufactured from a mica slate found on lot 7, range II. of Kingsey, Drummond county, Q. (687.)

— manufactured from a mica slate found in the township of Ham, Wolfe county, Q.—Presented by E. Richard, Arthabaska-ville, Q., 1875.—Cambrian, C 1. (1226.)

— manufactured from a mica slate found on lot 4, range V. of Madoc, Hastings county, O.—Archean, A. B. (681.)

— manufactured from a sandstone found at Arnprior, McNab, Renfrew county, O.—Presented by J. Bell, 1875.—Cambrian, C 2. (1224.)

— manufactured from a sandstone found on lot 24, range XI. of Nottawasaga, Simcoe county, O.—Silurian, E 1. (679.)

**Infusorial earth, siliceous sands, arenaceous marl and sifts.****Infusorial earth** (tripolite).—Fountain Lake, Amherst, Cumberland county, N.S.—Presented by A. Mackenzie, 1885. (5136.)

— Merigonish, Pictou county, N.S.—Presented by A. Mackenzie, 1885. (5137.)

— Folly Lake, Colchester county, N.S.—Presented by J. F. Torrance, 1886. (5230.)

— Pollet River Lake, Meehanic settlement, King's county, N.B.—Coll., R. W. Ellis, 1877. (1174.)

— Almonte, Ramsay, Lanark county, O. (673.)

— Valley of the Petewahwa River, about thirty-five miles from its entry into the Ottawa River, district of Nipissing, O. (676.)

— Vicinity of Barrard Inlet, B.C.—Coll., G. M. Dawson, 1875. (3457.)

Upright  
wing-case  
28.—  
*Continued.*

**Infusorial earth, siliceous sands, etc.—Continued.**

- Upright wing-case 28.—  
Continued.
- Siliceous sand** used in the plate factory at Danville for sharpening knives.—Lot 7, range XIV. of Shipton, Richmond county, Q. (1208.)
- suitable for polishing.—Upper layer.—Sturgeon Cove, Pennfield, Charlotte county, N.B.—Presented by C. E. Boardman, 1885. (4900.)
- suitable for polishing.—Lower layer.—Sturgeon Cove, Pennfield, Charlotte county, N.B.—Presented by C. E. Boardman, 1885. (4901.)
- suitable for polishing.—Amherst Island, Magdalen Islands, Q. Coll., J. Richardson, 1880. (2567.)
- suitable for polishing.—Laval—on the right bank of the Bras, at its junction with the Montmorency River, Montmorency county, Q. (678.)
- suitable for polishing.—Mount Hope, Glanford, Wentworth county, O. (672.)
- Arenaceous marl** used for the manufacture of Bath-brick, Kincardine, Bruce county, O.—Presented by Geo. Riggins, 1875. (1133.)
- Silt.**—White Mud River, Cypress Hills, district of Assiniboia, N.W.T.—Coll., R. G. McConnell, 1883.—Tertiary, L. (3611.)
- From below the boulder clay and above the gravel.—Eight miles above the Forks of the Red Deer River, N.W.T.—Coll., R. G. McConnell, 1883.—Tertiary, L. (4665.)
- Overlying boulder clay.—Crooked Creek, near Waterton Lake, district of Alberta, N.W.T.—Coll., T. C. Weston, 1883. (3532.)
- Columbia River (below the second lake), B.C.—Coll., G. M. Dawson, 1883.—Post-Glacial. (5118.)

**XI.—MINERALS OF MISCELLANEOUS APPLICATION.**

- Sandstone.** suitable for glass-making.—Lot 80, range II. of Hemmingford, Huntingdon county, Q.—Cambrian, C1. (754.)
- suitable for glass-making.—Lot 151, range II. of Williamstown, Chateauguay county, Q.—Cambrian, C1. (755.)
- suitable for glass-making.—Bishop's quarry, lot 6, range II. of Nepean, Carleton county, O.—Coll., T. C. Weston, 1875.—Cambrian, C2. (667.)
- suitable for glass-making.—De Cew's quarry, lot 48, range I. of Oneida, Haldimand county, O.—Coll., T. C. Weston, 1875.—Devonian, F1. (638.)
- Sand,** suitable for glass-making.—St. Joseph Island, north shore of Lake Huron, district of Algoma, O. (753.)
- Quartz,** suitable for glass-making.—Villeneuve mica mine, lot 31, range I. of Villeneuve, Ottawa county, Q.—Presented by L. H. Shirley, 1886. (5275.)
- Moulding sand.**—Vicinity of Radnor Forges, Batiscan, Champlain county, Q. (107.)
- Ste. Marguerite, Cap de la Magdeleine, Champlain county, Q. (108.)
- Lot 3, range V. of North Sherbrooke, Lanark county, O.—Coll., J. White, 1891. (945.)
- Owen Sound, Grey county, O. (1196.)
- Dundas, Wentworth county, O. (1197.)
- Soap clay.**—Fort Edmonton, district of Alberta, N.W.T.—Coll., A. R. C. Selwyn, 1873. (1206.)

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**POLISHED COLUMNS AND PEDESTALS OF LIMESTONE,  
AND SERPENTINE MARBLES AND OF OTHER  
ORNAMENTAL STONES.**

These occupy a position immediately in the front of some of the windows, also at either end of the central series of table-cases, and occasionally against the wall.

- Column and pedestal of limestone** (polished) supporting a mass (5042a) of **meteoric iron**. The limestone—whitish, and light bluish-grey, with light to dark greyish-black wavy markings—from the "Ottawa Valley" marble quarry, lot 15, range II. of McNab, Renfrew county, O.—Presented by R. McDonald & Son, Arnprior, 1886.—Laurentian, A., and the meteoric iron, weighing 370 lbs., was found, in 1854, on the surface of the ground in the township of Madoc, Hastings county, O. (5042.)
- Block of purple copper ore** (bornite).—Acton mine, lot 32, range III. of Acton, Bagot county, Q.—Cambrian, C I. (5049.)
- Column and pedestal of serpentine**. Polished. Column—light and dark green, with light greenish-grey spots, and veinings of white calcite. Pedestal—light and dark green, flecked and spotted.—Melbourne, Richmond county, Q.—Cambrian, C I. (5059.)
- **of limestone**—coralline. Polished. Light to dark bluish-grey, with white, ash-grey, and brownish-yellow markings, and brownish-yellow veinings.—Dudswell, Wolfe county, Q.—Presented by the Dudswell Marble and Lime Company, 1886.—Silurian, E3. (5143.)
- **of jasper conglomerate** on pedestal (5147a) of **granitoid gneiss**. Polished. The jasper conglomerate from Bruce Mines, Lake Huron, O.—Huronian, B., and the granitoid gneiss from the east side of Kingston Harbour, Frontenac county, O.—Laurentian, A. (5147.)
- **and pedestal of limestone** resting on a base (5149a) of **syenite**. Polished. The limestone—light to dark reddish-brown with white, and white, with dark grey, veinings.—From St. Joseph, Beauce county, Q.—Cambrian, C I., and the syenite from Forsyth's or Barrow Island, River St. Lawrence, opposite Gananoque, Leeds county, O.—Laurentian, A. (5149.)
- **and vase of red granite**. Polished.—St. George, Charlotte county, N.B.—Presented by the Bay of Fundy Red Granite Company, 1875.—Devonian, F. (5151.)
- **and pedestal of limestone** resting on a base (5153a) of **serpentine**. Polished. The limestone—white, penetrated by crystals of greenish-grey tremolite—from Barrie, Frontenac county, O.—Laurentian, A., and the serpentine—yellowish-green, light green, and greenish-grey—from Melbourne, Richmond county, Q.—Cambrian, C I. (5153.)
- **and pedestal of serpentine**. Polished. Light and dark green, with veinings of white calcite, brecciated.—Orford, Sherbrooke county, Q.—Cambrian, C I. (5157.)
- Crystal of apatite**.—Emerald mine, lot 18, range XII. of Buckingham, Ottawa county, Q.—Presented by W. A. Allan, 1886.—Laurentian, A. (5155.)

LARGE FRAGMENTS, ETC., OF MISCELLANEOUS  
MINERALS AND ROCKS.

These rest on brackets attached to the ends of the several upright wing-cases.

- Block of magnetic iron ore** (magnetite).—Grandison, Argenteuil county, Q.—Laurentian, A. (5159.)
- Neilson mine, west half of lot 19, range II. of Madoc, Hastings county, O.—Laurentian, A. (5161.)
- **of copper pyrites** (chalcopyrite).—Huntingdon mine, lot 8, range VIII. of Bolton, Bronte county, Q.—Cambrian, C. I. (5163.)
- Dressed block of bituminous shale**.—Albert Mines, Albert county, N.B.—Carboniferous, G. I. (5165.)
- Block of chromic iron ore** (chromite).—Lot 40, range II. of South Ham, Wolfe county, Q.—Cambrian, C. I. (5167.)
- Group of amethyst-crystals**.—Amethyst Harbour, Thunder Bay, Lake Superior, O.—Cambrian, C. I. (5169.)
- Crystal of scapolite**.—Island D., Lake Clear, Sebastopol, Renfrew county, O.—Laurentian, A. (5171.)
- Blocks of columnar basalt**.—Lake Superior, O. (5174.)
- Block of gypsum**.—Grand River, below Cayuga, Haldimand county, O.—Presented by W. Hamilton Merritt.—Silurian, E. 5. (5176.)
- Crystal of apatite**.—Lot 1, range XII. of Hull, Ottawa county, Q.—Presented by W. A. Allan.—Laurentian, A. (5178.)
- Porphyritic boulder**.—Lake Superior, O. (5180.)
- Block of jasper conglomerate**.—Goulais Bay, Lake Superior, O.—Coll., R. Bell, 1876.—Huronian, E. (5189.)
- Concretionary nodule**.—Kaministiquia River, district of Thunder Bay, O.—Cambrian, C. I. (5190.)

## MISCELLANEOUS MINERALS AND ROCKS.

Upright  
wing-case  
29.

- Hypersthene**.—From near Hebertville, township of Labarre, Chicoutimi county, Q.—Coll., F. D. Adams, 1883.—Laurentian, A. (835.)
- Serpentine** (massive and fibrous).—Fenwick and Sclater's asbestos mine, one mile and a half north-west of Coleraine station, Merquand county, Q.—Coll., R. W. Ellis, 1889.—Cambrian, C. (3511.)
- Quartz with albite, muscovite and spessartite**.—Villeneuve mine, lot 31, range I. of Villeneuve, Ottawa county, Q.—Presented by L. H. Shirley, 1886.—Laurentian, A. (5280.)
- Garnetiferous granite**.—From a boring on lot 11, range V. of Templeton, Ottawa county, Q.—Presented by Hector McRae, 1891.—Laurentian, A. (340.)
- Andesite**.—Château Richer, Montmorency county, Q.—Coll., J. Richardson.—Laurentian, A. (2519.)
- Orthoclase with quartz**.—Quetachoo, Manicouagan Bay, Saguenay county, Q.—Laurentian, A. (2524.)
- Apatite**, (vein, with phlogopite).—Lot 12, range XI. of Templeton, Ottawa county, Q.—Laurentian, A. (2547.)
- showing rounded crystals, in calcite.—Emerald mine, lot 19, range XII. of Buckingham, Ottawa county, Q.—Coll., J. F. Torrance, 1883.—Laurentian, A. (2562.)

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Apatite in

MISCELLANEOUS MINERALS AND ROCKS—*Continued.*

- Apatite** in pyrite, with pyroxene.—Lot 11, range V. of Templeton, Ottawa county, Q.—Presented by Hector McRae, 1891.—Laurentian, A. (2523.) Upright wing-case 29.—*Continued.*
- with pyroxene.—High Reck mine, lot 5, range VII. of Portland West, Ottawa county, Q.—Coll., C. W. Willimott, 1889.—Laurentian, A. (4915.)
- with pyroxene and phlogopite.—Moore's mine, lot 18, range II. of Wakefield, Ottawa county, Q.—Coll., C. W. Willimott, 1882.—Laurentian, A. (3444.)

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Rae, 1891.  
Richardson.—  
county, Q.—  
son, Ottawa  
p. 19, range  
all., J. F.

## C.—STRATIGRAPHICAL COLLECTION OF ROCKS.

Table-cases 1—23. This collection comprises between eight and nine thousand specimens representing the Laurentian, Huronian, Cambrian, Cambro-Silurian, Silurian, Devonian, Carboniferous, Triassic, Cretaceous and Tertiary systems as occurring in the Dominion.

and  
 Upright table-cases 1—18. Owing to the limited accommodation it has been found impossible to exhibit more than some three thousand of the more typical of the above specimens. These are shown in table-cases 1 to 23 and upright table-cases 1 to 18—the remainder being, for the most part, contained in the drawers under the table-cases.

The naming, labelling and arrangement of these rocks is being conducted by Mr. W. F. Ferrier. On completion of the same a separate catalogue of this collection will be issued.

Table-cases 24—33. A systematic collection of rocks is shown in table-cases 27 to 33. A typical series of rocks from British Columbia will be found in table-cases 24 to 26, and a like series from the Rocky Mountains, as also one illustrating a section across the latter, together with another from the North-west Territory, occupy, respectively, upright table-cases 19 and 20, 21 and 22 to 24.

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### D.—SPECIMENS ILLUSTRATING STRUCTURAL AND PHENOMENAL GEOLOGY.

These exemplify  $\Delta$  Stratification : lamination : anticlines : synclines : faults : contortions : glacial scoring : pot-holes : slickensides : dendrites : rain-prints : ripple-marks : mud-cracks : concretionary structure : weathering, etc., etc.

The following are shown in upright wing-case 29 (in part) and upright wall-cases 30, 31 and 32. Those more particularly illustrating weathering occupy cases arranged over upright table-cases 2 and 3.

**Banded veinstone** (pyroxene and apatite).—Lot 18, range XII. of Buckingham, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (2512.)

— (pyroxene and apatite).—High Rock mine, lot 5, range VII. of Portland West, Ottawa county, Q.—Coll., C. W. Willimott, 1889.—Laurentian, A. (2563.)

— (calcite and hornblende).—Lot 15, range VI. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (2534.)

**Concretionary veinstone**.—Lot 19, range XII. of Templeton, Ottawa county, Q.—Coll., B. J. Harrington, 1878.—Laurentian, A. (2516.)

— No. 11 pit, High Rock mine, lot 5, range VII. of Portland West, Ottawa county, Q.—Coll., C. W. Willimott, 1889.—Laurentian, A. (2564.)

**Geode of calcite** (nail-head spar).—Teny Cape, Hants county, N.S.—Coll., C. W. Willimott, 1883.—Carboniferous, G I. (4814.)

**Pyrite vein**.—Thirty Island Lake, lot 6, range III. of Bedford, Frontenac county, O.—Coll., C. W. Willimott, 1883.—Laurentian, A. (4663.)

**Limestone** (weathered).—Salmon River Falls, above Bull Lake, Kennebec, Frontenac county, O.—Laurentian, A. (4802.)

**Anorthosite rock** showing an alteration of rude bands, differing from each other in composition or in the size of the minerals composing them.—Road between ranges V. and VI. of Wexford, Montcalm county, Q.—Coll., F. D. Adams, 1887.—Laurentian, A. (5217.)

**Gneissic rock**.—On the road north of St. Donat, township of Lussier, Montcalm county, Q.—Coll., F. D. Adams, 1885.—Laurentian, A. (5218.)

**Gneiss** (a highly contorted band of) in crystalline limestone.—Discharge of Lac des Iles, township of Cartier, Joliette county, Q.—Coll., F. D. Adams, 1887.—Laurentian, A. (5219.)

**Contorted gneiss**.—Grenville, Argenteuil county, Q.—Laurentian, A. (4733.)

**Dyke, cutting gneiss**.—Loc. (?) (4804.)

**Brecciated trap**.—Lot 6, range III. of Grenville, Argenteuil county, Q.—Laurentian, A. (2555.)

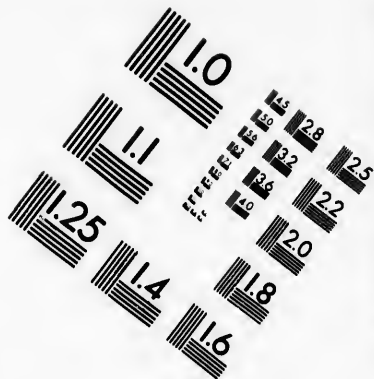
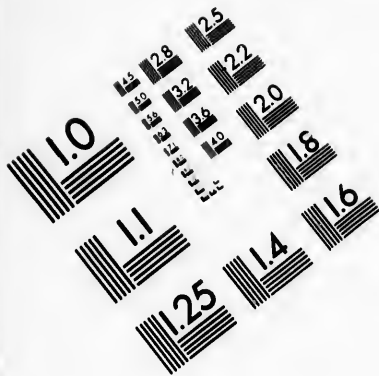
**Fossiliferous limestone** enclosed in trap.—Bay Chaleurs, between Little Casapedia and Capeling Rivers, Bonaventure county, Q.—(4811.)

**Trap conglomerate**.—Dalhousie, Restigouche county, N. B. (4812.)

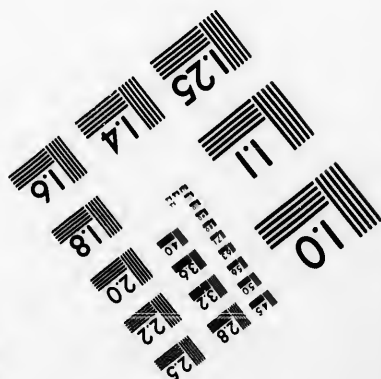
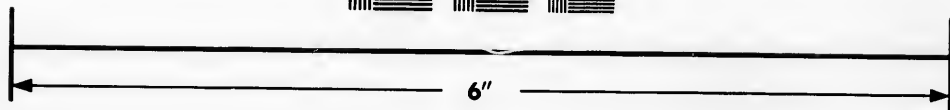
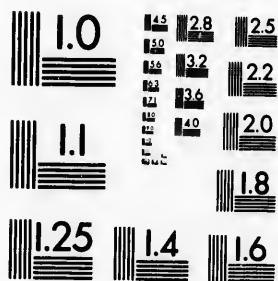
Upright  
wing-case  
29.







**IMAGE EVALUATION  
TEST TARGET (MT-3)**



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Corporation**

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## SPECIMENS ILLUSTRATING STRUCTURAL AND PHENOMENAL GEOLOGY—Continued.

- Upright wing-case 29.—  
Continued.
- Quartz conglomerate.**—Kaladar, Addington county, O.—Coll., A. R. C. Selwyn, 1891. (2576.)
- Conglomerate.**—Two miles west of Sudbury junction, C. P. R., district of Nipissing, O.—Huronian, B. (2543.)
- Hornblende granite,** with included highly altered fragments of Triassic volcanic rocks becoming incorporated with the mass.—Tucker Point, north shore of Thurlow Island, B.C.—Coll., G. M. Dawson, 1885. (5383.)
- Agglomerate,** composed of altered amygdaloidal fragments, and in composition probably diabase.—Discovery Passage, Vancouver Island, B.C.—Coll., G. M. Dawson, 1885.—Triassic, H. (5384.)
- composed of altered amygdaloidal fragments and lithologically, probably a much decomposed diabase.—Near entrance to south-east arm of Quatsino Sound, Vancouver Island, B.C.—Coll., G. M. Dawson, 1885.—Triassic, H. (5385.)
- Limestone** showing glacial striae.—Grandique, Arichat, Richmond county, N.S.—Coll., A. H. Foord, 1881.—Carboniferous, G I. (4671.)
- showing glacial striae.—Belleville, Hastings county, O.—Cambro-Silurian, D 2. (4672.)
- Gneiss** showing glacial striae.—North-east of Point des Monts lighthouse, Saguenay county, Q.—Coll., J. Richardson, 1860.—Laurentian, A. (4673.)
- Limestone** showing glacial striae in two directions.—From cutting below lock 2, Beveridge's Bay, Tay Canal, near Perth, Lanark county, O.—Presented by W. J. Morris, 1884.—Cambrian, C. (4918.)
- Argillite** showing slickensides.—Albion Mines, Picton county, N.S.—Coll., E. Hartley, 1868.—Carboniferous, G. (4707.)
- Slate** showing slickensides.—Lake St. John, Chicoutimi county, Q.—Coll., J. Richardson, 1870.—Cambro-Silurian, D 3. (4716.)
- Iron and copper pyrites** showing slickensides.—Crown mine, Ascot, Sherbrooke county, Q.—Presented by Mr. Leckie.—Pre-Cambrian, B? (4974.)
- Slate** showing slickensides.—Elgin mine, Paipoonge, district of Thunder Bay, O.—Coll., A. R. C. Selwyn, 1887.—Cambrian, C. (5635.)
- Quartz** showing slickensides.—Enterprise ledge, Lowhee Creek, district of Cariboo, B.C. (5360.)
- with grooved friction surface.—Bay Chaleurs. (4713.)
- Sandstone** with dendrites.—Beauharnois, Beauharnois county, Q.—Coll., W. E. Logan, 1852.—Cambrian, C I. (2529.)
- Mica** with dendrites.—Clarendon, Frontenac county, O.—Presented by W. Sheppard, 1883.—Laurentian, A. (4848.)
- Limestone** with dendrites.—Sydney, Cape Breton county, N.S.—Carboniferous, G. (4669.)
- Sandstone** with dendrites, Bar River, Lake Huron, O.—Coll., T. C. Weston, 1882. (4929.)
- Limestone** with casts of mud-cracks.—The Citadel, Quebec city, Q.—Coll., T. C. Weston, 1890. (4708.)
- Sandstone** exhibiting casts of mud-cracks. Beveridge's Bay, Tay Canal, near Perth, Lanark county, O.—Presented by W. J. Morris, 1884.—Cambrian, C I. (4919.)
- showing highly relieved casts of shrinkage cracks.—Long Cove (Gaspé county, Q.—Coll., W. E. Logan, 1844.—Devonian, F. (4757.)

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## SPECIMENS ILLUSTRATING STRUCTURAL AND PHENOMENAL GEOLOGY—Continued.

- Rain-prints** on clay, Montreal, Hochelaga county, Q.—Coll., T. C. Weston. (4703.)
- on argillite.—Adams' Mill, Maccan River, Southampton, Cumberland county, N.S.—Carboniferous, G. (4704.)
- on argillite.—From the sixth cutting east of Riversdale station, Intercolonial Railway, Colchester county, N.S.—Coll., T. C. Weston, 1886. (5308.)
- Clay** showing lamination.—Hanover, Brant county, O.—Coll., C. W. Willimott, 1885. (5086.)
- Chert** showing banded structure.—Thunder Bay, Lake Superior, O.—Cambrian, C 1. (4675.)
- Sandstone** showing lines of bedding.—Lot 12, range IX. of Pittsburgh, Frontenac county, O.—Cambrian, C 1. (4734.)
- showing lines of bedding.—L'Anse au More, Labrador.—Coll., T. C. Weston, 1872.—Cambrian, C. (4677.)
- Banded quartzite** showing fault.—Pillage Bay, seigniory of Mingan, Q.—Coll., J. Richardson, 1872.—Cambrian, C 1. (4699.)
- Argillite** showing bedding.—Trois Pistoles, Temiscouata county, Q.—Coll., J. Richardson, 1858.—Cambrian, C. (4678.)
- Slate** showing planes of stratification and cleavage.—Metapedia River, Q.—Coll., W. E. Logan, 1844.—Silurian, E. (4679.)
- Sandstone** showing false bedding.—Section 28, township of Meredith, district of Algoma, O.—Coll., T. C. Weston, 1882. (4926.)
- Quartz** with striated surface.—Oldham, Halifax county, N.S.—Coll., A. R. C. Selwyn, 1870.—Cambrian, C. (4694.)
- Fossiliferous limestone** with impressions left by pebbles.—From the bottom of Georgian Bay, off White Cloud Island, Lake Huron, O.—Coll., R. Bell, 1859. (4696.)
- Limestone** marked with sharp deep angular cavities, supposed to have held lenticular crystals of calcite.—Pittsburgh, Frontenac county, O.—Coll., A. Murrey, 1852.—Cambro-Silurian, D. (4690.)
- showing impression left on removal of a crystal of mica by weathering.—North Elmsley, Lanark county, O.—Coll., T. C. Weston.—Laurentian, A. (4701.)
- Dolomite** with hopper-shaped impression, supposed to have been formed by crystals of common salt.—From near York, Haldimand county, O.—Silurian, E 5. (4793.)
- Limestone columns** (crystallites).—Kingston, Frontenac county, O.—Coll., W. E. Logan, 1842.—Cambro-Silurian, D. (4685.)
- Crystallites** penetrating chert imbedded in limestone.—From near Port Dover, Norfolk county, O.—Devonian, F 1. (4680.)
- Limestone** showing unequal weathering.—Montreal, Hochelaga county, Q.—Cambro-Silurian, D. (4796.)
- showing unequal weathering.—Mount Wissick (Mount Lennox), Lake Temiscouata, Temiscouata county, Q.—Coll., H. M. Ami, 1887. (5566.)
- showing unequal weathering.—Crow Lake, Marmoras, Hastings county, O.—Coll., H. G. Vennor.—Laurentian, A. (4676.)
- showing unequal weathering.—Tudor, Hastings county, O.—H. G. Vennor.—Laurentian, A. (4695.)
- Chert rock** showing unequal weathering.—Cherty Point, Lake Superior, O.—Coll., W. E. Logan, 1846.—Cambrian, C. (4692.)
- Dolomitic limestone nodules, in limestone**—showing unequal weathering.—Silver Mountain, district of Thunder Bay, O.—Coll., E. D. Ingall, 1886.—Cambrian, C. (5575.)

Upright  
wall-case  
30.—  
Continued.

## SPECIMENS ILLUSTRATING STRUCTURAL AND PHENOMENAL GEOLOGY—Continued.

- Upright wall-case  
30.—  
Continued.
- Columnar limestone.**—Kettle Point, Bosanquet, Lambton county, O.—Coll. H. M. Ami, 1883.—Devonian, F 3. (4684.)
- Columnar basalt.**—Cape d'Or, Cumberland county, N.S.—Coll., S. Barlow, 1875.—Triassic, H. (4766.)
- Limestone** enclosing pebble of chert.—From bank of the Rideau River, near Archville, Carleton county, O.—Presented by G. Russell, 1883. (4709.)
- Limestone conglomerate.**—Road between Quisisibis and Siegas Rivers, Madawaska county, N.B.—Coll., L. W. Bailey.—Silurian, E. (4682.)
- Jasper conglomerate.**—Michipicoten Island, Lake Superior, O.—Coll., W. E. Logan, 1846. (4810.)
- Conglomerate.**—Bonnehère River, Renfrew county, O.—Recent. (4681.)
- Upright wall-case  
31.
- Contorted shale.**—Albert Mines, Albert county, N.B.—Coll. R. W. Ellis, 1875.—Carboniferous, G 1. (4719.)
- Beliveau, Westmoreland county, N.B.—Coll., W. McOuat, 1875.—Carboniferous, G 1. (4917.)
- Contorted limestone.**—South side of River St. Lawrence, Gaspé county, Q.—Cambrian, C. (4735.)
- Contorted quartzite.**—Free clain, Renfrew, Hants county, N.S.—Coll., A. R. C. Selwyn, 1870.—Cambrian, C. (4720.)
- Contorted limestone.**—From point three miles above River Ste. Anne, Gaspé county, Q.—Coll., J. Richardson, 1858.—Cambrian, C 3. (4722.)
- One mile and a half above Marsouin River, Gaspé county, Q.—Coll., T. C. Weston, 1878.—Cambrian, C. (4737.)
- Contorted chert.**—New Glasgow, Terrebonne county, Q.—Coll., H. G. Vennor, 1879.—Cambro-Silurian, D. (4723.)
- Contorted mica slate.**—Falls of the River du Loup, Beauce county —Coll., A. R. C. Selwyn. (4736.)
- Contorted gneiss.**—Lot 28, range I. of McDougal, district of Parry Sound, O.—Coll., R. Bell, 1876.—Laurentian, A. (4700.)
- Contorted quartz.**—Loc. ? (4744.)
- Contorted quartzite.**—Loc. ? (4745.)
- Contorted band of quartz in limestone.**—South half of lot 17, range II. of Grenville, Argenteuil county, Q.—Coll., C. W. Willimott, 1889.—Laurentian, A. (4715.)
- Contorted quartzite.**—Grenville, Argenteuil county, Q.—Laurentian, A. (4725.)
- Contorted chert rock.**—Lake Mistassini, Q.—Coll., J. Leitch, 1871. (4742.)
- Corrugated limestone.**—Seamence Bay, Bonaventure county, Q.—Coll., A. H. Ford.—Devonian, F. (4724.)
- Corrugated slate.**—Isaac's Harbour, Guysborough county, N.S.—Coll., A. R. C. Selwyn, 1870.—Cambrian, C. (4741.)
- Corrugated argillite** (caused by the intersection of cleavage and bedding planes).—Oldham, Halifax county, N.S.—Coll., A. R. C. Selwyn, 1870.—Cambrian, C. (4731.)
- Corrugated mica schist.**—Ming's Bight, Newfoundland.—Presented by Rev. M. Harvey. (4746.)
- Corrugated slate.**—Eastern Townships, Q. (4689.)
- Corrugated limestone.**—Little Métis, Rimouski county, Q.—Coll., J. Richardson, 1878.—Cambrian, C. (4740.)
- Eddy Brook, Melbourne, Richmond county, Q.—Coll., T. C. Weston. (4743.)

SPECIMENS ILLUSTRATING STRUCTURAL AND PHE-  
NOMENAL GEOLOGY—Continued.

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- Coll., S. Barlow.
- Rideau River, near
- Gas Rivers, Mad-  
— ailey.—Silurian, E.
- r, O.—Coll., W. E.
- recent. (4681.)
- Coll., R. W. Ellis.
- F. McQuat, 1875.—
- Gaspé county, Q.—
- N.S.—Coll., A. R.
- r Ste. Anne, Gaspé  
— —Cambrian, C 3.
- county, Q.—Coll.  
— (7.)
- coll., H. G. Vennor.
- county — Coll.,
- of Parry Sound, O.  
— (276.)
- range II. of Gren-  
— . Willimott, 1889.
- —Laurentian, A.
- b, 1871. (4742.)
- nty, Q.—Coll., A.
- N.S.—Coll., A. R.
- nge and bedding  
— —Coll., A. R. C.
- Presented by Rev.
- —Coll., J. Richard-
- Q.—Coll., T. C.
- Contorted iron slate.**—Sutton, Brome county, Q.—Pre-Cambrian, B? (4726.)
- Corrugated quartzose mica schist.**—Melbourne, Richmond county, Q.—Pre-Cambrian, B? (4738.)
- Contorted chloritic schist.**—Lake of the Woods, district of Rainy River, O.—Coll., A. C. Lawson, 1882.—Huronian, B. (721.)
- Corrugated limestone.**—Echo Lake, district of Algoma, O.—Coll., T. C. Weston, 1882.—Huronian, B. (4711.)
- Limestone** showing rill-marks.—Kaministiquia River, district of Thunder Bay, O.—Coll., A. Murray, 1848. (4751.)
- showing rill-marks.—Two miles above Marsouin River, Gaspé county, Q.—Coll., J. Richardson, 1858.—Cambrian, C. (4748.)
- Sandstone** showing rill-marks.—From cove below Grande Coupe, Gaspé county, Q. (4749.)
- showing rill-marks.—Island of Orleans, River St. Lawrence, Q.—Coll., T. C. Weston, 1870.—Cambrian, C. (4730, 4752.)
- showing ripple-marks.—Beauharnois, Beauharnois county, Q.—Coll., J. Richardson, 1859.—Cambrian, C. (4702.)
- showing ripple-marks.—Long Cove, Gaspé county, Q.—Coll., W. E. Logan, 1844.—Devonian, F. (4750.)
- showing ripple-marks.—Upper Lake, Thessalon River, district of Algoma, O.—Coll., A. Murray, 1848. (4727.)
- Limestone** with wrinkled surface.—From the Citadel, Quebec City, Q.—Coll., T. C. Weston, 1890. (4706.)
- Geyser pipe.**—Three Rivers, St. Maurice county, Q. (4747.)
- Concretionary limestone.**—From near New Glasgow, Picton county, N.S.—Coll., W. E. Logan, 1868.—Carboniferous, G. (4753.)
- Small's lot, Little Harbour, Picton county, N.S.—Coll., W. E. Logan, 1868.—Carboniferous, G. (4756.)
- Concretionary sandstone.**—Woodworth Cove, King's county, N.S.—Triassic, H. (4760.)
- Concretionary argillite.**—Albert Mines, Albert county, N.B.—Coll., R. W. Ellis, 1876.—Carboniferous, G 1. (4776.)
- Concretionary trap.**—From 550 yards west of the lighthouse, Point Prim, Digby Gut, Digby county, N.S.—Coll., Prof. How, 1862. (4787.)
- Concretionary markings in slate.**—Torbay Road, a mile and a quarter from St. John's, St. John's county, Q.—Coll., T. C. Weston. (4774.)
- Concretionary sandstone.**—Abittibi River, district of Algoma, O.—Coll., A. S. Cochrane, 1877.—Silurian, E. (4765.)
- Spheroidal concretionary diorite.**—Small island west of Midsummer Island, Queen Charlotte Sound, B.C.—Coll., G. M. Dawson, 1885. (5417.)
- Spheroidal concretion** (radiated columnar limestone).—Kettle Point, Bosanquet, Lambton county, O.—Devonian, F 3. (4809.)
- Concretionary quartzite.**—Point near White Bear Hills, opposite Long Island, Hudson Bay.—Coll., R. Bell, 1877.—Cambrian, C. (4769.)
- Teska Harbour, seventeen miles south-west of Great Whale River, Hudson Bay.—Coll., R. Bell, 1877.—Cambrian, C 1. (4770.)
- Davieau's Island, Richmond Gulf (sixty miles north of inlet), Hudson Bay.—Coll., R. Bell, 1877.—Cambrian, C 1. (4772.)
- Quartzite concretions.**—South side of Little Whale River, Hudson Bay.—Coll., R. Bell, 1877.—Cambrian, C 1. (4768.)
- Limestone concretions** in trap.—Long Island, south-west of Little Whale River, Hudson Bay.—Coll., R. Bell, 1877. (4797.)

Upright  
wall-case  
31.—  
Continued.Upright  
wall-case  
32.

## SPECIMENS ILLUSTRATING STRUCTURAL AND PHENOMENAL GEOLOGY—Continued.

Upright  
wall-case  
32.—  
Continued.

- Nodular concretion of iron pyrites.**—Mouth of Nelson River, Hudson Bay.—Coll., R. Bell, 1879.—Recent. (4794.)
- Clay concretions.**—Apple Tree Point, Lake Champlain.—Coll., T. C. Weston. (4785.)
- From the beach at Kingston, Frontenac county, O.—Presented by W. G. Kidd, 1888. (5672.)
- Concretionary trap.**—Spider Island, Lake Huron, O.—Coll., T. C. Weston, 1882. (4783.)
- Concretionary limestone** in amygdaloid.—Lake Superior, O.—Coll., W. E. Logan, 1846.—Cambrian, C. (4779.)
- Concretionary nodule** with inclusions of iron pyrites.—Beaver mine, district of Thunder Bay, O.—Coll., A. R. C. Selwyn, 1888. (5720.)
- Concretionary limestone** (magnesian).—From near Hector, Hector Pass, Rocky Mountains, B.C. (5449.)
- Concretionary nodules** from the limestone beds.—Cut Point, Lake Winnipeg, Manitoba.—Coll., T. C. Weston, 1884.—Cambro-Silurian, D. (4885.)
- from the limestone beds.—Kinnow Bay, Lake Winnipeg, Manitoba.—Coll., T. C. Weston, 1884.—Cambro-Silurian, D. (4886.)
- from the limestone beds.—Bonus Island, Lake Winnipeg, Manitoba.—Coll., T. C. Weston, 1884.—Cambro-Silurian, D. (4887.)
- Limestone concretions** from the Miocene conglomerate.—Swift Current, district of Assiniboia, N.W.T.—Coll., T. C. Weston. (4888.)
- Concretionary nodules** from the Miocene conglomerate.—Swift Current, district of Assiniboia, N.W.T.—Coll., T. C. Weston, 1884. (4889.)
- Clay iron-stone nodules.**—Gaspé Bay, Gaspé county, Q.—Coll., W. E. Logan, 1844. (4777.)
- Swan River, Manitoba.—Coll., S. J. Dawson, 1874. (4786.)
- South Joggins, Cumberland county, N.S.—Coll., T. C. Weston, 1882.—Carboniferous, G. (4791.)
- Limestone concretions.**—Half a mile west of White Mud River, near the Fort Walsh trail, district of Assiniboia, N.W.T.—Coll., T. C. Weston, 1884. (4890.)
- Clay nodule** enclosing a fossil—*Mallotus villosus*.—Green's Creek, Gloucester, Carleton county, O.—Tertiary, L. (4778.)
- Clay nodules.**—Green's Creek, Gloucester, Carleton county, O.—Presented by James Fletcher, 1884. (5328.)
- Green's Creek, Gloucester, Carleton county, O.—Presented by Bro. Matthias, 1886. (4884.)
- Goulais River, district of Algoma, O.—Coll., R. Bell, 1875. (4780.)
- Two miles east of Little Whale River, Hudson Bay.—Coll., R. Bell, 1877. (4781.)
- About two miles up Little Whale River, Hudson Bay.—Coll., R. Bell, 1877. (4782.)
- Victoria, Vancouver Island, B.C.—Coll., J. Richardson, 1872. (4798.)
- Sandstone nodule** enclosing a fossil—*Desmoceras Beudanti*, Brongniart (Sp.) Canshewa Inlet, Queen Charlotte Islands, B.C.—Coll., G. M. Dawson, 1878.—Cretaceous, K. (4790.)
- Sandstone nodules.**—Bank of the Rideau Canal, nine miles east of Kingston, Frontenac county, O.—Coll., A. R. C. Selwyn, 1888.—Cambrian, C I. (5567.)
- Limestone** showing cone-in-cone structure.—South Joggins, Cumberland county, N.S.—Coll., T. C. Weston, 1882.—Carboniferous, G. (5046.)



SPECIMENS ILLUSTRATING STRUCTURAL AND PHE-  
NOMENAL GEOLOGY—Continued.

- Trachyte** showing flow structure.—Masset Inlet, Queen Charlotte Islands, B. C.—Coll., G. M. Dawson, 1878. (4759.)
- Quartz geodes** from the Tertiary basalts.—East end of Kamloops Lake, B. C.—Coll., G. M. Dawson, 1877. (5550.)
- Mammillary quartz**.—Spencer Island, Cumberland county, N. S.—Coll., C. W. Willimott, 1888.—Triassic, H. (5666.)
- Stalagmite** from the Acadia coal-pit, Pictou county, N. S.—Presented by H. S. Poole, Stellarton, N. S. (3514.)
- Eroded boulder**.—Off Michipicoten Island, Lake Superior, O.—Coll., R. Bell, 1876. (4762.)
- Waterworn pebble** with "pot-hole."—British Columbia.—Coll., J. Richardson. (4773.)
- Hematitic deposit** of Lacustrine formation.—Nova Scotia. (4784.)
- Limestone slab** with concentric markings.—Lake Winnipeg, Manitoba.—Coll., R. Bell.—Cambro-Silurian, D. (4763.)

Upright  
wall-case  
32.—  
Continued.

SPECIMENS OF LAURENTIAN ROCKS IN WHICH DETAILS  
OF STRUCTURE ARE RENDERED APPARENT  
BY WEATHERING.

Of these, Nos. 5206--5216 are arranged over upright table cases 1, 2 and 3, and Nos. 5217, 5218 and 5219 are shown in upright wing-case 29.

- Laurentian limestone** with inclusions of gneissic rock. The latter are usually much elongated in shape, and often considerably contorted, but being approximately parallel to one another, give to the whole a sort of flow structure. Loc.—Island in Lac Onareau, township of Lussier, Montcalm county, Q.—Coll., F. D. Adams. (5206.)
- Foliated anorthosite rock.** Loc.—Rivière aux Porcupine, Chicoutimi county, Q.—Coll., F. D. Adams. (5207.)
- Foliated anorthosite rock.** Loc.—Lot 34, range I. of the township of Bourget, Chicoutimi county, Q.—Coll., F. D. Adams. (5208.)
- Massive anorthosite rock.** Loc.—Shipshaw River, range IX. of the township of Simard, Chicoutimi county, Q.—Coll., F. D. Adams. (5209.)
- Porphyritic anorthosite rock.** Loc.—Bank of North River, range X. of the township of Abercombie, Terrebonne county, Q.—Coll., F. D. Adams. (5210.)
- Foliated orthoclase gneiss.** Loc.—East shore of Lake Archambault, township of Lussier, Montcalm county, Q.—Coll., F. D. Adams. (5211.)
- White anorthosite rock** with imbedded masses of a plagioclase feldspar, angular in shape and generally elongated in one direction. The presence of a few strings of iron-ore or lime-magnesia silicates, coinciding in direction with the longer axis of the plagioclase masses, gives to the rock, in places, a somewhat banded appearance. Loc.—Rivière aux Sables, four miles from Lake Kenogami, township of Jonquière, Chicoutimi county, Q.—Coll., F. D. Adams. (5212.)
- Augen gneiss** (eye gneiss).—The "Augen" or eyes consist of orthoclase feldspar, bounded in every case by a narrow zone of plagioclase (?) feldspar. Loc.—Little Perihonka River, forty-seven miles from Perihonka River, Chicoutimi county, Q.—Coll., F. D. Adams. (5213.)

**SPECIMENS OF LAURENTIAN ROCKS IN WHICH DETAILS  
OF STRUCTURE ARE RENDERED APPARENT  
BY WEATHERING—Continued.**

- Coarse grained, massive, anorthosite rock**, occurs associated with the medium grained variety (No. 5213). Loc.—Bank of Shippshaw River, range IX. of the township of Simard, Chicoutimi county, Q.—Coll., F. D. Adams. (5214.)
- Medium grained, massive, anorthosite rock**, occurs associated with the coarser variety (No. 5214). Loc.—Bank of Shippshaw River, township of Simard, Chicoutimi county, Q.—Coll., F. D. Adams. (5215.)
- Anorthosite rock**.—Shows the light colour and general characters assumed by the rock of the great anorthosite area of Morin, Wexford, Beresford and the neighbouring townships, near its contact with the Laurentian gneiss on its eastern and southern sides. Loc.—Lot 50, range III. of Wexford, Montcalm county, Q.—Coll., F. D. Adams. (5216.)
- Anorthosite rock** showing an alteration of rude bands, differing from each other in composition, or in the size of the minerals composing them. Loc.—Road running between ranges V. and VI., township of Wexford, Montcalm county, Q.—Coll., F. D. Adams, 1884. (5217.)
- Gneissic rock**. Loc.—On road north of St. Donat, township of Lussier, Montcalm county, Q.—Coll., F. D. Adams, 1885. (5218.)
- Gneiss**, a highly contorted band of, in crystalline limestone. Loc.—Discharge of Lac des Iles, about one mile north-west of the rear line of the township of Cartier, Joliette county, Q.—Coll., F. D. Adams, 1887. (5219.)

Case.

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Loc.—Discharge of  
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TO

## MINING DISTRICTS, AREAS, CAMPS, LOCATIONS AND CLAIMS,

ALSO TO

## MINES, QUARRIES AND PITS.

## ABBREVIATIONS.

Alta. District of Alberta.	N.B. Province of New Brunswick.
Assa. District of Assiniboia.	N. North.
Atha. District of Athabasca.	N.W.T. North-west Territory.
B.C. Province of British Columbia.	N.S. Nova Scotia.
Ck. Creek.	Ont. Province of Ontario.
co. County.	Pt. Point.
dt. District.	P.E.I. Prince Edward Island.
E. East.	Que. Province of Quebec.
Hbr. Harbour.	R. River.
Isl. Island.	S. South.
L. Lake.	Syn. Synonym of.
loc. Location.	Sask. District of Saskatchewan.
Man. Province of Manitoba.	tp. Township.
Mt. Mount.	V. I. Vancouver Island.
Mtn. Mountain.	vic. Vicinity of.
Mtns. Mountains.	W. West.
nr. Near.	

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